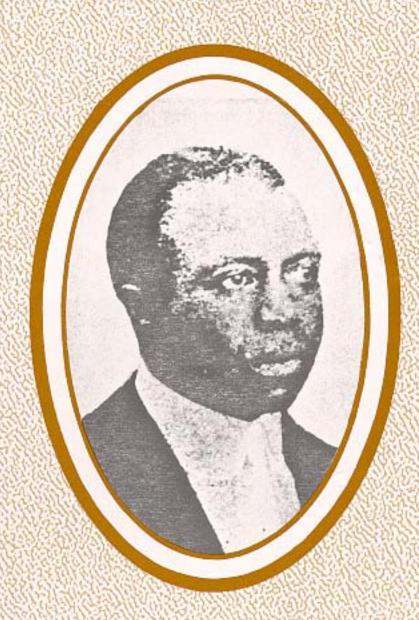
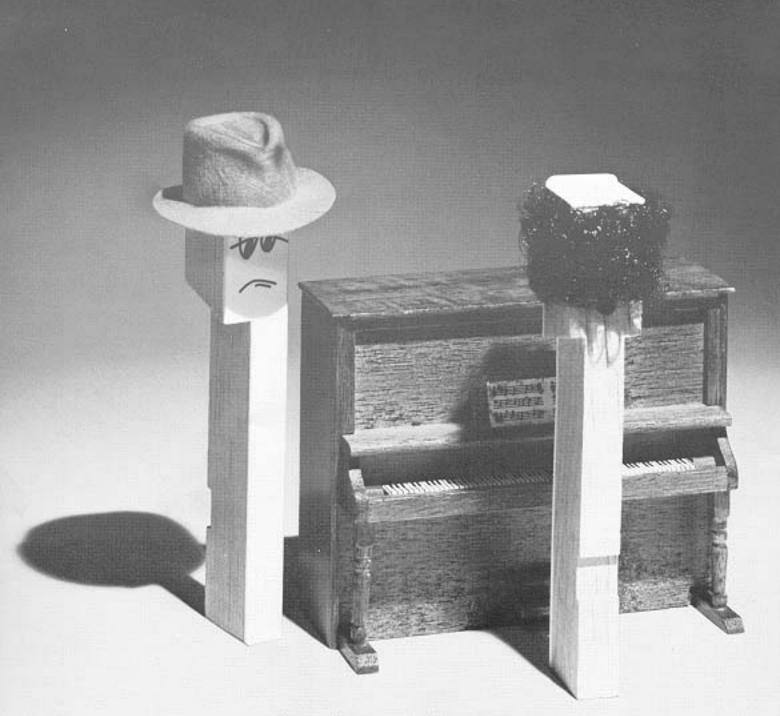
PIANO TECHNICIANS JOURNAL

October 1981



Scott Joplin



Playitagain, Sam...

As time passes, fads and mediocre performances tend to fade away and quality begins to be acknowledged.

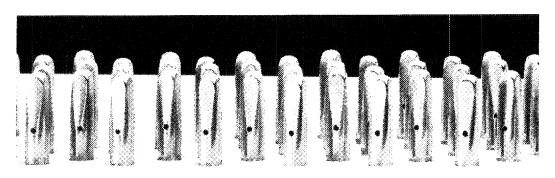
Very few industries have been around as long as the piano industry, and within our industry, we are one of a handful of companies that can look back on two centuries of growth.

We'll continue to make keyboards and actions for you and you'll make and market the pianos.

As we are moving faster and faster towards the next century, quality and value are in greater and greater demand... which is very promising for the piano industry and for us at Pratt, Read.

Pratt, Read & Co., Ivoryton, CT 06442 The future belongs to quality.

Multi-laminated beech pin block material



At long last Schaff has obtained a distributorship for the German made, multilaminated beech pin block material called DELIGNIT®. For several years now this type of pin block has been imported into the United States and Canada. Now this particular DELIGNIT® grade, having the same characteristics of density as used by almost all European piano manufacturers, is available at Schaff.

As the above picture of a typical 1%" DELIGNIT® pin block shows, there are approximately 21 cross laminated plys of high quality beech veneers that are compressed together with a modified hot curing phenolic resin applied in a special dry-bonding process. A full panel pin block measures 48" wide x 59" long with a double block being 19" wide and a single block measuring 91/2". All of the various width blocks come in either 1¼", 1¾" or 1½" thickness.

Single and double blocks can be shipped UPS, but a full panel must ship via truck. Write or call for pricing information.

THE HOUSE DEDICATED TO SERVICE



(312) 438-4556

PIANO SUPPLY COMPANY OAKWOOD ROAD, LAKE ZURICH, IL 60047

Piano Technicians Journal

CONTENTS

EDITORIAL/Don L. Santy	4
KNOW YOUR OFFICERS	6
TECHNICAL FORUM/Jack Krefting	8
AFTER TOUCH/David Pitsch	14
SOUND BACKGROUND/ Jack Greenfield	16
TRIBUTE TO FLOYD QUALLS	17
PUBLIC THANKS/AWARDS	18
CONVENTION REPORT/Susan Graham	19
ALOHA/Alpha Tolbert	25
IN THE FIELD/Ben McKlveen	26
THE TUNER/Paul Monroe	28
DON'T WATCH US GROW/Ernie Preuitt	30
MEMBERSHIP AWARDS/NEW MEMBERS	31
AUXILIARY EXCHANGE/Julie Berry	32
COMING EVENTS	33
CLASSIFIED ADVERTISING	36

COVER... The King of Ragtime, Scott Joplin, was years ahead of his time as he sought recognition for ragtime as a musical form. With the success of the movie "The Sting," piano rag soared to popularity gaining Joplin the acclaim he deserved. "The Entertainer" renamed "The Sting" served as the title song, winning an Academy Award in 1974. Other works include: "Maple Leaf Rag", "The Ragtime Dance" and Treemonisha.

The words Piano Technicians Guild, Inc., and the logo are registered with the Patent and Trademark office -- unauthorized use is strictly prohibited.

THE PIANO TECHNICIANS GUILD, INC.

113 Dexter Avenue North Seattle, Washington 98109

Telephone: (206) 283-7440

682-9700

Office Hours: (Pacific Time)

8 am-5 pm Monday-Thursday

8 am-Noon Friday

Messages may be left after office hours by calling (206) 682-9700. Your call will be answered by a tape recording machine.

PIANO TECHNICIANS JOURNAL,

the official publication of the Piano Technicians Guild, is published monthly and issued to members. Annual subscription price: \$60 per year; \$108 for two years; \$5.50 per single copy. Editorial Offices: 113 Dexter Avenue North, Seattle, WA 98109. Telephone (206) 283-7440 or 682-9700. Closing date for copy and advertising is six weeks prior to date of publication. Advertising rates are furnished on request.

Reprints of most articles are available from the Guild home office, 113 Dexter Avenue North, Seattle, WA 98109. Price per page (plus postage): \$1.25 for the first page of each Journal article researched, \$1.00 for additional pages of the same article.

Second Class postage pald at Seattle. US ISSn 0031 9562 Foreign and Domestic.



1981/1982 Executive Board

Officers

SID STONE, President 1075 Palisade Street Hayward, California 94542 (415) 583-7760

ERNEST S. PREUITT, Vice President 4022 S. Fuller Independence, Missouri 64052 (816) 252-2885

CHARLES HUETHER,

Secretary/Treasurer
34 Jacklin Court
Clifton, New Jersey 07012
(201) 473-1341

BOB RUSSELL, Immediate Past President 1414 Lander Road Mayfield Hts., Ohio 44124 (216) 449-5212

Regional Vice Presidents

ROBERT SMIT, Northeast 404-210 Woodridge Cres. Nepean, Ontario, Canada K2B 8E9 (613) 829-8655

MARSHALL B. HAWKINS, Southeast P.O. Box 10386 Oxon Hill, Maryland 20745 (301) 567-2757

TOM R. BLANTON, South Central 1516 Shields Drive Sherman, Texas 75090 (214) 892-3176

GEORGE PETERS, Central East 846 Westchester Road Saginaw, Michigan 48603 (517) 799-6133

RICHARD A. FLEGLE, Sr., Central West 1920 S. 1st Street, #904 Minneapolis, Minnesota 55454 (612) 644-9992

DANIEL A. EVANS, Western 4100 Beck Avenue Studio City, California 91604 (213) 762-7544

Journal Staff

DON L. SANTY, Executive Editor PATTY CONNELL, Managing Editor Graphics

JACK KREFTING, Technical Editor GEORGE DEFEBAUGH, Recorded Journal Reader

ANNOUNCING THE HALE ELECTRO FORK



Unmatched for accuracy and stability. Small enough to fit your pocket... and easy on your pocketbook.

The Hale Electro Fork is the most accurate, stable and compact pitch standard ever made. It's the perfect alternative to pitch pipes and other outdated pitch deter-

mining instruments because it becomes your third hand.

It offers remarkable accuracy never achieved before. This pinpoint accuracy is guaranteed because the Hale Electro Fork uses a high frequency crystal. The unit is checked for accuracy after 100 hours of "burn in" time, then its exact frequency is measured and printed out on a certificate which is enclosed with each Hale Electro Fork.

The Hale Electro Fork also insures maximum stability under a wide range of operating conditions such as temperature, component aging and battery voltage.

Its pocket size allows you to take it anywhere. And it's designed to fit your pocket in more ways than one. And it represents a significant savings of \$100 or more over many conventional pitch standards on the market today.

This easy-to-use unit is equipped with an on/off button, a three (3-4-5) octave range setting from C to B, continuous/intermittent sound and a volume control.

Now that you've read our pitch . . . get the pitch right with the Hale Electro Fork.



TUNERS SUPPLY COMPANY

Serving the Music Industry Since 1884

EASTERN BRANCH: 94 Wheatland Street, Somerville, MA 02145 (617) 666-4550 WESTERN BRANCH: 190 South Murphy Avenue, Sunnyvale, CA 94086 (408) 736-2355



Quality Conscious Craftmanship

Write for complete price list or call **The Muster's Piano Shop, In**





Piano Keys Recovered With



ART IVORY

Over 50 years of continuous service to dealers and tuners

WRITE FOR COMPLETE PRICE LIST

O. E. SHULER CO., Inc.

149 E. HARRISON ST. PARAGON, INDIANA 46166

Quality Instruction Utilizing: State-of-the Art Equipment Low In-State Tuition for U.S. Citizens Equal Opportunity Institution Male, Female, Handicapped

GCC

Write for our brochure Grayson County College Piano Tuning and Repair 6101 Grayson Drive Denison, Texas 75020

New England Conservatory

DEPARTMENT OF PIANO TECHNOLOGY

FRANK HANSON, Chairman

The nation's oldest independent conservatory of music offers an outstanding program in the maintenance, tuning, and reconstruction of pianos. Program graduates are qualified for independent professional practice upon completion of course.

For application and/or brochure, write:

New England Conservatory Department of Piano Technology Frank Hanson, chairman 290 Huntington Avenue Boston, Massachusetts 02115 Tel. (617) 262-1120, ext. 365

EDITORIAL

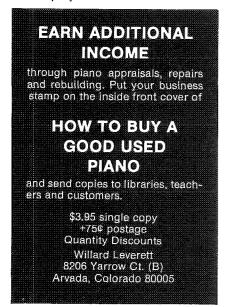
Don L. Santy, Executive Editor

Most people just don't seem to equate time with money!

In their minds, time and money come into focus only when they are docked some pay for time lost, or, in the case of employers, when they are paying someone for time and getting nothing in return. When owners of small businesses begin to realize that success in business depends on the efficient, productive, and proper use of time, they soon learn to manage their own as well as their employees' time. Progress is determined by the proper use of time, more then any other ingredient.

Everybody gets exactly the same amount of time—24 hours a day. We don't all run out of time equally in the end of course, but it is proportioned equally while we are still able to use it. The choices we make in how we use our time impacts on our chances for success or failure in life generally.

So it is with our employees. They can contribute to our success or failure. It all depends on their attitude, skill, judgement and sense of timing. Independent business people, whether they are craftsmen, salesmen, professionals, entrepreneurs, or whatever, must judicially distribute time to maximize profit or plunge into bankruptcy. There are some who are



self-motivated and attuned to this type of lifestyle while others are totally lost in its concept. Most piano technicians survive on the basis of how wisely they use their time, since theirs is a personal and self-directed service.

A wise octogenarian I once knew used to say, "one boy is a whole boy, two boys are half a boy, and three boys 'ain't no boy at all'." He hired young boys in his lumber yard. In his own way, he had figured out one of the basic concepts of time and personnel management. Most people feel that, if they hire an additional person, they will get twice as much work produced. This, of course, just isn't so. Fifty per cent more in actual production is more realistic.

How much actual production can you expect from an eight-hour-a-day employee? It appears to have been going down over the past few years, primarily due to heavy union demands for additional benefits, loose controls, poor training and education (preparation), and some repressive employment security regulations. Employers consider themselves lucky if they can squeeze five hours of billable time out of an employee each day.

A good illustration comes to mind, fresh from our recent convention in San Francisco. In a spirited discussion we had with an hotel official on the additional costs charged to us because we fell so short on our room commitments, he explained how just one labor group (out of dozens representing hotel employees) successfully negotiated a contract whereby each chambermaid would be reguired to do one less room a day. This meant that the hotel would have to hire 35 additional chambermaids, provide a new locker room with 35 new lockers, and pay 35 new benefit packages, taxes, salaries, etc. On top of everything else, each chambermaid has to be provided a new pair of stockings when she arrives at work each day. "And you wonder why our prices had to go up," he stated. "Just add fifty cents to each hour of labor for one small group and costs go up by millions—we still have the same space to sell and no more."

An illustration of cost and time effectiveness was highlighted in a conversation I had with a friend who had visited a hospital while his wife was being attended to. My friend was sitting in the waiting room and watching the next shift come on duty. He noted that some 20 people stopped at the lunch room to get a cup of coffee, chat, greet friends, and discuss the previous night's activities. They finally got to their desks and began to work about 20-30 minutes later. Quick arithmetic can tell you how much lost time 20 people can cost a hospital before the day's work even began. When you consider time lost, extended breaks, etc., it is understandable why the cost of hospital care continues to rise.

Compulsive coffee drinkers, smokers, and talkers cost a great deal of lost time and money to their employers—sometimes to the point of no return. In addition, we pay people not to work. They get paid vacations, paid holidays, paid sick leave, allowable tardiness for personal reasons, etc. Small businesses find it financially impossible to absorb nonproductive time.

For every employee and paid, you must produce three times the amount to provide space, equipment, benefits, and salary. It used to be twice as much, but times have changed. For every employee hired, the employer must be ready to sacrifice a certain amount of production time for training, counseling, and placating. Employers must always be concerned with the impact their staff is having on the image and reputation of their businesses. Unethical behavior and dishonestly cannot be tolerated. Firing an employee may be an odious task, but it can be costly to delay. More often than not, the actual discharging of an employee, for whatever reasons, may resolve a problem for all concerned. The welfare of the business should come first.

Reader Feedback

Dear Mr. Santy:

I would just like to commend Jack Greenfield for his article "Equal Temperament and Other Musical Scales of China" in the August, 1981 issue, and I'm happy you were able to take the trouble to publish it. China's achievements in the field of music seem to be very poorly appreciated in the West, even today. Perhaps Mr. Greenfields article will help awaken us.

I became especially intrigued with China's ancient music theory when I discovered that the very ancient Chinese had worked out not only the complete twelve tone chromatic octave, and were able therefore to transpose their melodies, but they arranged the twelve tones in two sets of six each, representing the familiar two whole tone scales. One scale represented six tones as sung by the mythical male bird, Feng-huang, and the other scale tones were sung by the female of the same mythical species. This bird, the Feng-huang, is similar to-but by no means the same as-the Phoenix, a mythical bird in the Occident. The Feng-huang is associated with music, marriage, and other important and favorable things. By singing together, the male and female were able to sing any melody in any key. In the West, it was only in recent centuries, since about 1400 A.D., that keyboard instruments were fitted with raised keys, enabling musicians to transpose at will. We in the West added five supplementary notes to the original seven. The Chinese, hundreds, perhaps thousands of years earlier, thought out the entire system of twelve tones and established a 6-6 system. We look at their system as quaint, when actually it seems to be superior. It certainly implies a very early concept of a more or less equal tempered tuning.

The book Let's Tune Up, by John Travis, includes a discussion of early Chinese music theory, also, I seem to hear more about Chinese music theory from my fellow tuners than from the music theorists!

Sincerely. Thomas S. Reed

JOURNAL SUBSCRIBER SERVICE Change of Address? Please give us 4 weeks' advance notice. Attach the label for your old address, write in your new address below Entering a new subscription? Check the box and fill in your name below. Renewing? Check the box below and be sure your mailing label address is correct. PLEASE SEND THE **JOURNAL** FOR 1 YEAR AT \$60 □ New subscription □ Renewal Payment enclosed Name Address Apt. No.

Piano Manufacturers Elect New Officers

Telephone

CHICAGO, July 21-Harry Kaprelian, president of the Charles Ramsey Corp., has been elected president of the National Piano Manufacturers Association and the National Piano Foundation.

State/Province

Zip/Postcode

Other officers include Peter Perez. president of Steinway & Sons as vice president and Harwood (Woody) Comstock, vice president and general manager of Pratt, Read & Company to the treasurer's post. Both Kaprelian and Perez recently completed two terms each as officers: Kaprelian as vice president and Perez as treasurer.

The National Piano Manufacturers Association is one of the oldest trade associations in the country. Through its educational and informational programs, it advises consumers on purchasing and maintaining planos, and on piano study for children and adults. The NPMA's educational arm, the National Piano Foundation, conducts classes, conferences, publications, continuing education programs, and the New Music Review Library.



Who knows better than you, the professional tuner/technician, what Dampness and Dry Heat can do to a piano. That Dampness can cause sticking keys, rusty strings and pins and sluggish action. In winter, how Dry Heat in heated areas can cause rattling keys, slipping pins and even cracked soundboards, and as you know, tuning instability is caused by both conditions.

Now, Dampp-Chaser's Humidity Control System comes to the rescue! It guards pianos and your good work, safely and silently against both Dampness and Dry Heat automatically by establishing and maintaining normal humidity within all pianos 365 days a year.

Recommending and installing the Dampp-Chaser System will create satisfied customers, plus bring you more customers. The cost to piano owners for a lifetime investment, including your installation, would be around \$125 (upright) or \$150 (grand). Proven in over ONE MIL-LION installations worldwide since

GET STARTED NOW

Write for information and **FREE** samples of the Dampp-Chaser Business Building Aids.

OVER 30 YEARS OF MANUFACTURING BY

${f DAMPP-CHASER}^{f 0}$

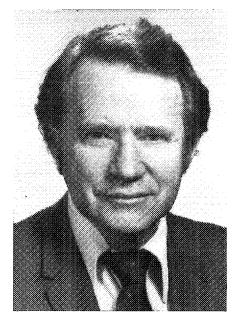
ELECTRONICS, INC.

ĥΓŒ P.O. Box 1610 PTJ HENDERSONVILLE, N.C. 28739

CALL US TOLL FREE AT 1-800-438-1524

978-1

Know Your Officers



Sid Stone

PRESIDENT, PIANO TECHNICIANS GUILD

(A new series on "Know Your Officers" was approved at the San Francisco board session. This first article introduces President Sid Stone who shares some of his background with us.)

Your president, Sidney "Sid" O. Stone, joined the Piano Technicians Guild in April 1965 as a craftsman. He has been an officer of the Piano Technicians Guild's board of directors since June 1978, when he was elected vice president of the Western Region. In addition to serving on special committees, for the past four years he has been Chairman of the Conference and Seminar and the Membership Promotion Committees and Member of the Time and Place and the Trade Relations Committees. Recently, he completed a revision of our pamphlet The Piano Tuner-Technician.

Sid was born July 30, 1919, on a farm in eastern Colorado. When he was seven, he and his family moved to western Colorado to the city of Cedaredge (population 464). During the Great Depression, his family experienced poverty along with many others. When people ask "How poor were you?" he says, "We were so poor that, whenever mother made raisin bread, the kids fought over who got the slice with the raisin in it."

He worked as a cowboy for one of the local ranchers during his high-school years. Following two years at the State Teacher's College in Greeley, CO, Sid served overseas in France, German, and Austria, during World War II, as Infantry Battalion Supply Officer. He received the Bronze Star medal during combat in Germany. After the war, he resumed his schooling and graduated from Ottawa University in Kansas. He later moved to California and, in 1951, he graduated from the Berkeley Baptist Divinity School.

Sid married a Texas girl, Ludine, a week after he graduated from Ottawa

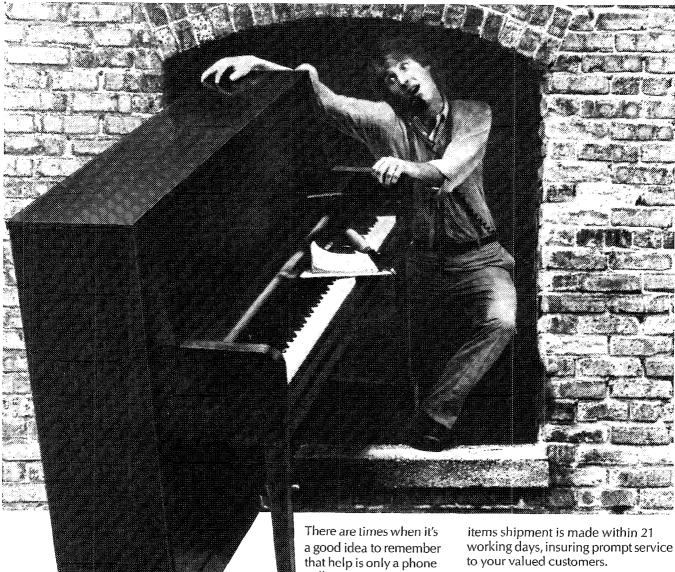
University. After their move to Berkely, CA, Ludine's health began to deteriorate, to a point where she was paralyzed from the neck down, and she needed a full-time nurse-housekeeper. When the nurse who had been taking care of Mrs. Stone for several years left to marry, it was necessary to find a replacement. This was not easy. Sid found that ads in the local papers were futile. When he put an and in the San Francisco Chronicle, a young Chinese woman, Alice Wong, called for an interview. She had just arrived from Africa with her daughter. She had been employed in a textile factory. Requirements for the job were: (1) a woman tall enough and strong enough to get an invalid out of bed with the help of an hydraulic lift, and (2) a good voice over the telephone to handle the piano tuning business. Alice was hired. She and her daughter, Shirley, moved in with the Stones. Shirley enrolled in a business school in San Francisco.

A year after Ludine's death, Sid's son, David, married Shirley. A year later, Sid married Alice. They don't have to make decisions on whose parents tovisit on Thanksgiving and Christmas. A generation ago, the success of a "mixed marriage" might have been in question. Sid reports, however, that he and Alice are still on their honeymoon. They have found a church where the service is in Chinese, and, even though Sid doesn't understand the language, he enjoys the Christian fellowship.

Sid's daughter, Carolyn, is also a piano tuner. At present, she is on a leave of absence to raise two young children. In 1977, when she couldn't think of what to give her father for his

birthday, she presented him with his first grandchild.

With over 30 years in piano service, your president is still working to pay his bills. President Sid is a dedicated member of the Guild and is looking forward to the challenges that lie ahead during his leadership role in the Piano Technicians Guild. He is full of ideas for advancing the knowledge and skills of the officers and of the board and members. He will be receptive to suggestions for building membership and enlarging the Guild. His goals are high—his reach is far; the Guild is anticipating great things under his leadership. In the months ahead. President Sid wishes to meet and talk with the membership. He will be looking for you at local seminarsespecially at the 25th anniversary convention in Washington, D.C., next July.



Toll-free troubleshooting: 1-800-253-3416

call away.

A toll-free phone call to Bill Brandom, customer service administrator at the Everett factory.

He's the man to talk to when you need something fast whether it's technical literature or parts or just plain answers.

Right now, Bill is ready to send you our new Everett service manual. Just send your name, address, and Guild membership number to him and he'll promptly send your personal copy to you free.

As for cabinet parts, Bill guarantees shipment to you within 10 working days in almost all cases. On bass strings and other critically needed hardware

And when you need answers fast, Bill can give them to you straight away or call in engineers, designers, or production people to help solve your problems.

Save this advertisement to help you remember to call Bill Brandom at 1-800-253-3416 when you need action, not excuses. At Everett, we're ready to help.



Noteworthy pianos since 1883.



THE TECHNICAL FORUM

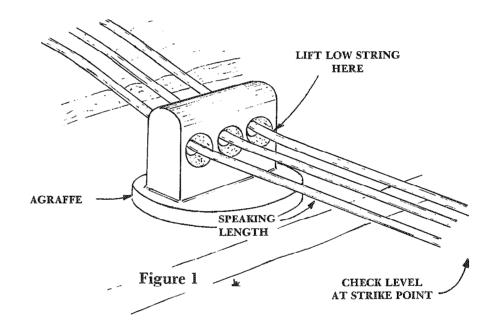
Jack Krefting, Technical Editor

VOICING

Some subjects are easily—well, relatively easily—discussed in the print medium. Such things as key dip, damper lift, action spread dimensions and wire stiffness factors can be defined in objective terms, as can turning pin torque readings and a host of other specifications. The topic of voicing, on the other hand, probably comes as close as anything to the subjective in our field; by definition, then, voicing is an art form. It is probably presumptuous, and maybe even silly, for me to try to discuss it in this medium, but I will try anyway.

When we voice a piano, we are in a sense free to make it glassy or mushy or anything in between those extremes, but we are also working within certain limitations imposed by the scaling and construction of the instrument. These factors are boundaries within which we may practice our art. No spinet piano can be made to sound like a concert grand, but almost every piano can be made to sound better than before; the scope of this discussion, then, will extend to the limits of the existing scale only, not to fundamental changes in design. This is not to say that existing designs are perfect in concept and execution, but as a practical matter we must usually work with what there is:

In a grand piano, because of its shifting action, it is essential that the strings be level at the strike point before any attempt is made to fit the hammers to the strings or voice the piano. The very idea that strings under tension might not be level with one another tends to be unacceptable to the casual observer, but even assuming that the agraffes are straight and correctly bored and that



there are no high spots on the capo or bridge, the strings may still not be perfectly level within the unison. This may be partly due to the variation in counterbearing, and partly because of the way the wire came off the coil when the piano was strung. In any case, and whatever the reason, if the strings are not level we must make them level by lifting the low string or strings of the unison right next to the agraffe as shown in Figure 1. Feel across the strings at the strike point, or as close to it as the damper will allow, and pull or pry up the offending string. Figure 2 illustrates a factory leveling tool, a string hook and a rounded screwdriver; none of them have sharp corners that could nick the string. Whatever tool is used, it is important that the leveling be done before any attempt is made to fit the

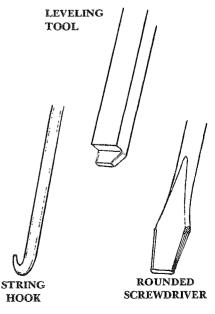


Figure 2

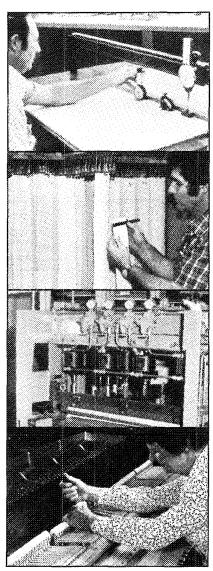
The Baldwin Piano... You can see why it sounds better

We firmly believe that hammer making is one of the most critical of all piano building processes. That's why we spend significant extra dollars in materials and time in the manufacture of all of our own hammers for both vertical and grand pianos.

Our special concern starts with materials. We pay a premium price for 100% virgin wool felt made to our standards for weight, thickness, taper, size and hardness. To guarantee that all hammer felt meets our standards, we subject every sheet we receive to stringent testing before accepting it for production.

The same extra concern continues in our exclusive construction procedures. First felt is treated in our moisture-conditioning chamber until it reaches a prescribed moisture content. Then the felt is placed in a special hammer press, designed and built by our engineers. This press has preset closing pressure and automatic cycling for consistency. We use a special thermosetting glue to secure the felt to the moldings. And we check throughout the process to insure that the proper felt hardness is retained.

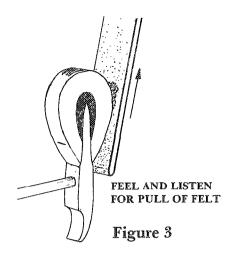
The object of all this extra care in design and construction of hammers is tone quality...and tone quality that is consistent from note to note.



Fifth in a series of informative ads on piano tone published by Baldwin Piano & Organ Company exclusively for the benefit of piano technicians.

Baldwin.-Leading the way through research

BALDWIN SPECIAL SERVICE—You may order Baldwin replacement parts at any time our office is closed—nights, weekends, and holidays—by dialing direct (513) 852-7913. Your verbal order will be recorded on our automatic answering service and processed the next working day.



hammers to the strings, otherwise the hammers cannot possibly fit in both the normal and shifted positions.

If the hammers are new and the technician is not pressed for time, the cup-shape could be removed before filing. For a detailed description of that procedure, please refer to page 16 of our December 1978 issue.

New or old, the hammers should be filed to remove dead felt from the surface. The choice of paper is important, so a brief digression into sandpaper types might not be misplaced here. Ordinary sandpaper is covered over its entire surface with grit, and is not recommended for this purpose because some of the grit inevitably comes off the paper and becomes lodged in the hammerfelt. Emery cloth seems attractive because of its tough backing and long life, but it also has a tendency to lost particles and may darken the felt. Open coat garnet paper has a 60% surface coverage with amber-colored grit, and is the favored material because it does the job without discoloring or embedding particles in the felt to any significant degree.

Angles hammers in the lower half of the scale must be filed individually and my suggestion is to use a 1" wide paddle with 60 grit paper to start. This may be followed with 100 or 120 on another paddle, and then the polishing is done with tape-backed 220 paper but no paddle. The higher part of the scale may be gang-filed with the same grades of paper wide enough to cover three or four hammers at once. When filing more than one hammer at a time, support the shanks or the tails with a strip of wood, voicing block, or reverse the hammer rest rail. It is assumed that all traveling and burning has already been done, otherwise the striking surface will be inadvertently filed at an angle to the plane of the unison.

Start filing low on one shoulder as illustrated in Figure 3, listening and feeling for the pull of felt layers. Take several quick strokes in one spot until the resistance is felt in the paddle. This is important, as it indicates that one or more layers of felt is separating and will be filed off all the way around the hammer. With more quick strokes of the paddle, pull the laver to the crown and then do the same thing on the opposite side. When the tuft is sanded off the crown, any resistance in one direction will indicate whether more has been removed from one side than the other. Remove any extra felt from the high side, from the wire to the crown so that the surface consists of a continous layer all the way around.

The pulling of the layers can not only be felt as resistance in the paddle, but it can be heard as a suddenly lower frequency in the scraping sound of paddle on felt. Try it on a scrap hammer with good, sharp paper and you will hear the pitch drop, indicating that a layer is ready to be removed. This cannot be heard without the paddle, which is one more reason I do not recommend power tools or plain paper for the initial filing. Incidentally, felt fibers in the air are hazardous to your health, and a Dremel really makes then fly; but even if you file by hand, it's a good idea to use a respirator to protect the lungs. Lacking that, disposable filters are available for about 25¢, or tie a handkerchief around your face while filing.

Be sure that the paddle doesn't make the crown slanted or rounded as shown in **Figure 4**. The big advantage of gang-filing in the treble is that the tops of the hammers tend to be straight; it is unfortunate that gangfiling cannot be used throughout the scale

The next step is to fit the hammers to the strings, which means making sure that the hammer will strike all strings of its unison at exactly the same time. A glance at **Figure 5** will

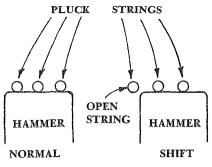
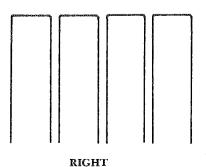


Figure 5

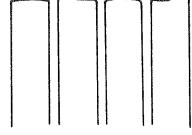
indicate why it is imperative that the strings be level as discussed earlier. We are looking at a front view cross section of three strings with the hammer just touching them, and then the same view with the action shifted to the right. If we selectively file the hammer to fit unlevel strings in the normal position, when shifted we would almost certainly have more than one open string.

Test for hammer fit by lifting firmly on the jack tender, forcing the hammer to block lightly on the strings. Step on the damper pedal and pluck the strings of the unison, listening for strings which are "open" or not damped by the hammer. Devise a code and chalk the keys with appropriate notations between the key covering and the key buttons. This saves a lot of time because the action will not have to be withdrawn and replaced so many times. When the entire keyboard has been coded in this manner, we can begin selectively filing portions of the hammers for a good mating with the strings.

Place a sheet of 150 grit open coat garnet paper on the workbench, grit side down, and cover the back with brown plastic packaging tape. This will stiffen the paper and strengthen it at the same time. Then lay a straightedge on the taped paper and, with a hobby knife or other sharp blade, cut the paper into strips approximately 3/32" wide. Pull the strip around the shoulders and crown of the hammer to remove a small amount of felt in the middle or on one side, however your







WRONG

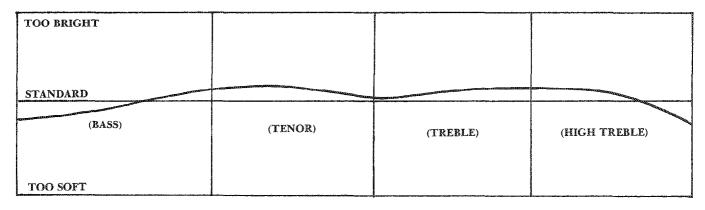


Figure 6

chalked code indicates. Remove material wherever the strings were not open, the theory here being the same as used in fitting a pinblock or bedding a keyframe. When all of the hammers that needed this work have been selectively filed, erase the chalked code and put the action back in the piano. Double-check every hammer and repeat the process as necessary.

An essential step which must be performed at this point if not earlier is to fine-tune and regulate the piano. It is impossible to make a judgment on tone quality with uneven regulation or fluttering unisons.

Figure 6 illustrates a tone regulating chart which is used to record and evaluate volume and brilliance prior to tone regulating. The straight horizontal line running through the center represents the ideal or sought-for level of brilliance and volume, and the vertical lines indicate scale breaks. This chart is for a four-section plano, but it could as easily be made for a piano with three or five sections. The wavy horizontal line indicates where the piano needs brightening and where it is already too bright. This is quicker than writing detailed notes regarding each hammer and may, in some cases, be more accurate because the entire scale is compared quickly to itself and to a preconceived standard. It will be valuable not only in the tone regulating process, but also in the final voicing as a point

Using this chart as a guide, we then brighten the mushy hammers as required, preferably by filing. If filing will not sufficiently brighten them, it may be necessary to add a chemical hardener to the felt. This process is chancy in that the hammer can easily be ruined if the liquid is applied to the strike point or in concentrated form. If lacquer is used, we must remember that it will continue to harden over a

period of time, and that if not sufficiently diluted it will be impossible to needle the felt later. It is better to start with a 10-to-1 or even a 15-to-1 solution, applied to the shoulders only. Then if more hardening is needed the mixture can be strengthened with more lacquer and reapplied.

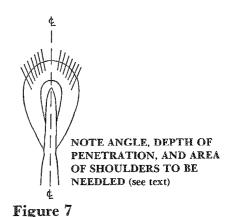
The too-bright hammers are brought down by needling the shoulder areas, with the approximate angle and penetration illustrated in Figure 7. Support the tail or the shank with a voicing block or a thin sheet of hardwood. Personally, I prefer to use a square piece of maple rimstock that supports about ten tails at once, because I feel there is less chance of breaking shanks than if a block is placed under the shanks, but either way works fine if one hand holds the hammer firmly while the other jabs with the needles.

Theoretically, the best results would be achieved if the direction of the needle jabs were radial-that is pointing directly to the tip of the hammer molding regardless of where the needles were inserted. As a practical matter, though, that doesn't work very well because it breaks the shanks unless a pushing motion is used rather than the conventional jabbing motion. The angles illustrated seem to work best for me. You will note that the area to be voiced extends from about 9:30 or 10:00 to about 11:30 on the one side, and about 12:30 to 2:00 or 2:30 on the other. Remember that the number of iabs on one side must be duplicated on the other, otherwise the hammer will lose its symmetry in time: remember also that the closer you get to the crown, the greater effect of the needling. Deep needling, which I will tentatively define as a penetration of 14" to 1/2", is used to diminish the upper partial strength on a hard blow; shallow needling softens and sweetens the

tone on a soft blow.

There are a number of techniques, but the one I am suggesting provides some advantages, I think. The problem is needling hard felt (and what other kind needs it?) involves getting good penetration, getting in a maximum number of jabs per minute, avoiding needle breakage, and avoiding stabbing oneself. The following method accomplishes all the above objectives: Grasp the voicing tool firmly in the right fist (assuming you are right-handed) and lock the wrist in one position. Lock the shoulder also by holding the upper arm tightly against the side of the chest. All of the movement in a vertical direction, then, is done at the elbow. For adjustments in position, whether fore-andaft or sideways, move the entire body. If you have not tried this method. which incidentally I learned from Cliff Geers, I urge you to try it. You will get more power and accuracy, greater speed (3 to 4 jabs per second), and because neither the shoulder nor the wrist is flexign, you will very rarely break the needle.

The number of needles to be used in a voicing tool is the subject of much controversy, much of which is probably needless. The simple fact is that if you are strong enough to repeated-





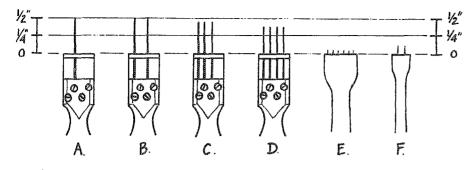


Figure 8

ly sink four needles to a depth of 3/8" to 7/16" in hard felt, you will be faster and more efficient than the technician who can do the same with two or three needles. If the unskilled or understrength technician tries to deep-needle with four needles and the result is a penetration of less than a quarter inch, the effort will go largely unrewarded. Do not necessarily needle a particular area, but probe for hard spots in the hammer. Use fewer needles as necessary to find the hard spots, and then go after them; it is a waste of time and effort to needle soft felt.

Figure 8 illustrates the relative lengths of needles preferred by many technicians. The single needle in A may be used to probe for hard felt; the two-needle tool may also be used for this, or it may be used for penetrating power in a hard hammer. C represents the workhorse of my toolcase, the best combination of penetrating power and efficiency. D is useful and fast, provided deep penetration is possible with so many needles. The six very short needles in example E are for use in those rare instances where it is necessary to go over the striking surface, which is when the upper partials are still disagreeably prominent but the shoulders are devoid of hard felt, or when the loud tone is good but the soft one is harsh. F is the tip of a long thin stick which, when inserted between the strings, makes it possible to sweeten the tone with a shallow needling on the crown when the action is in the piano. To use this tool, depress the key full and push the hammer down until the top of the backcheck touches the hammerfelt; continue to hold the key down while gently needling the crown of the captured hammer. This type of shallow needling is for concert preparation only, as the effect is subtle and temporary.

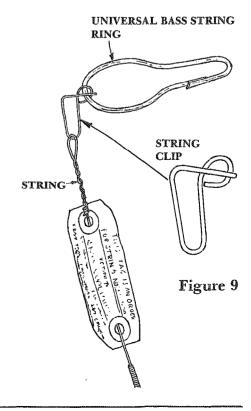
Many technicians prefer to use a No. 6 Sharp needle, regardless of length or application, although some will use a larger needle when it will be used singly or as one of a pair. Sharps are tapered more gradually than standard sewing needles, thus will penetrate more easily. Measure the desired length, hold the needle at that point with a plier, and break off the unwanted length. Heat the broken end with a match to remove the temper where the screw will hold it, and install it in the voicing tool.

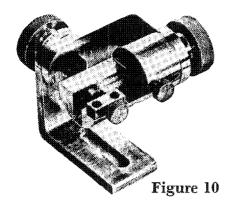
The most important thing of all is the result obtained, needless to say, and it is also the hardest to discuss. When the job is finished, the result should not surprise the technician, positively or otherwise; the tone quality achieved though careful voicing is a predictable one which exactly matches his preconception of what it should be. When we needle, we are deliberately altering the resilence of the felt by breaking the grip of some of the fibers under tension. This released tension on the outer portion allows the hammer to flex more on impact, which means that it will not only compress and rebound with greater freedom, but it will also flatten more on a hard blow, which puts more felt area on the string. This changes the shape of the wave on impact and has a dampening effect on some of the upper partials while effectively increasing the fundamental. If that sounds confusing, consider this: If you hit a piano string with a boxing glove you will get almost nothing but fundamental, while if you hit it with a stick you will get practically no fundamental but predominnating partials. Another comparison, of value perhaps only to those with access to early keyboard instruments, would be the booming fundamental sound of the virginal as opposed to the harmonic richness of the harpsichord.

If there is one misconception that is more prevalent than others, it is probably the notion that partials are bad. We talk about them as though our goals were to eliminate them, which of course if not the case at all. They are an integral part of every musical tone, and in fact their particular arrangement is what gives different instruments distinctive tone qualities. What we are trying to do is to partially dampen those partials which predominate to a degree that we consider offensive, without destroying the breadth and richness which they help to provide. To drag out a tired old cliche one more time, we are trying to make the piano sing.

TIP OF THE MONTH

Herman Koford has come up with another in a long series of useful tips for the technician. His latest is a cute little strip clip, illustrated in **Figure 9**, the purpose of which is to allow quick and easily removal of one string from a ring of Universals without moving them all around to the opening in the ring. Each clip, which is made of scrap music wire, can be made in less than a minute and is a real time-saver on the job. Thanks, Herman.





GADGET OF THE MONTH

I hesitate to call this a gadget, as it is really a precision tooling fixture for hammer boring (see **Figure 10**). Designed and built by Bart Paulding, the jig will hold any hammer firmly at any angle. It is made of steel and brass, solid and beautiful, as well as it should be for \$225. Bart's address is 4775 Belfast Ave., Oakland, California 94619.

IN CONCLUSION

Because of the length of the voicing article, we did not use the usual question-and-answer format this month. We will resume that in our next issue, though, provided our readers send in plenty of grist for the mill. Please send all technical questions, tips, comments and articles for publication to me at this address:

Jack Krefting, Technical Editor Piano Technicians Journal c/o Baldwin Tech Service 1801 Gilbert Avenue Cincinnati, OH 45202

THE NEW ENGLAND SCHOOL OF

STRINGED KEYBOARD INSTRUMENT TECHNOLOGY

Department of North Bennet Street Industrial School

PIANOFORTE HARPSICHORD CLAVICHORD

TWO-YEAR COURSE

Instructors: William E. Garlick David C. Betts

FIRST YEAR — In Tuning, Regulating, Repair and Maintenance, Acoustics, History, Business Practice and Promotion.

SECOND ADVANCED ELECTIVE YEAR —

SECOND ADVANCED ELECTIVE YEAR — Comprehensive piano rebuilding, advanced tuning, regulating and voicing. Harpsichord and Clavichord maintenance.

N.B.I.S. admits students of any race, color, religion, sex. national or ethnic origin. For further information write: William E. Garlick, Program Director, Dept. Piano Tech., 39 North Bennet Street, Boston, Mass. 02113 or telephone (617) 227-2357,

When you buy our bass strings you'll receive strings that are

Confident of the tone they produce;

Confident of their crisp, clear harmonic structure securely based on a solid, powerful fundamental:

Confident of their scaling which takes into consideration tension, load, in harmonicity and stretch:

Confident, above all, that they may be the only strings in the industry not abandoned to the impersonal, indiscriminate regimen of automated machines but individually hand-wound and individually ear tested.

With all these fine qualities, our strings are

Never Over-Confident. If you don't like them they know they'll be replaced . . . free of charge.

If you're looking for that extra dimension once known as piano tone — our strings have it.

For using UPS to Canada two forms are required: a Customs Cargo Control Document supplied by UPS on request, and a Commercial Invoice, stating value of goods (no more than \$2 to avoid holdups) and origin of goods (U.S.).

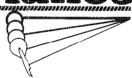
When using UPS or mail send to:

A. Issac Pianos 308 Betty Ann Dr. Willowdale, Ontario CANADA M2R 1B1 Please mark parcel: CUSTOMS CLEAR-ANCE BY FEDERATED CUSTOMS BROKERS.

When sending old string or hammer samples, please write this Customs Reference Number T59750-1 (KAG) on outside of parcel to speed it through customs.

24-HOUR TELEPHONE SERVICE — CALL (416) 226-1171

A. Isaac Pianos





NOW AVAILABLE! FINEST QUALITY "Röslau"

Cold Drawn Wire

EXTRA QUALITY . BLUE LABLE .
TINNED OR PLAIN

Available in 1 and 5 pound Coils

SIZES 12 through 22 (Half Sizes) 12 through 20%

SMALLER SIZES 1/4 lb. COIL No. 00 through 11 (Even Sizes Only)

COMPLETE LINE OF TOOLS and SUPPLIES for PIANO REBUILDERS

SPECIAL TOOLS . . .

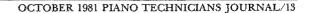
Designed to Meet the Technician's Requirements

- SPOON BENDERS
- SPOON BENDERS
 GRAM WEIGHTS
- REPINNING TOOL
- REPINNING TOOL
- SHIMMING KNIVES
- KEY BUSHING TIGHTENER
- STRING HEIGHT GAUGE
- GRAND KEY LEVELING LEADS
- STRING HOOKS (2 Types)

Write: BOX PTJ

PACIFIC PIANO SUPPLY CO.

P.O. Box 9412 • North Hollywood, Calif. 91609 Phones: (Area 213) 877-0674, 769-2490



After Touch

David Pitsch Utah Valley Chapter

Part XIII

32) The Blow continued

To wind up the discussion on blow, I want to describe some different methods that I know of to measure the distance accurately between the tops of the hammers at rest to the bottom of the strings. One easy way is to use a small pocket ruler with a sliding clip. The clip is moved to the appropriate mark on the scale, say 1%". The ruler is then inserted through the strings until the tip of the ruler touches the top of the hammer to be measured. The clip marking the desired blow distance is then compared to the bottom of the string. The capstan is adjusted until the clip matches this mark.

The good aspects of this method are that the tool used is already in your tool kit and can be used for many other purposes. It is also easily adjustable to provide a blow gauge for whatever blow distance is desired. This can be helpful if the blow distance wanted is measured in millimeters and does not correspond to a normal inch measurement. The drawbacks to this method are that the clip often moves while trying to measure, giving a false reading; and the ruler usually slips out from between your fingers and drops into the action. Both of these problems have forced me to look for a better idea.

A number of years ago while visiting the Baldwin factory I was given a very nice aluminum gauge Figure 1 which can be used to set a blow distance of 1%". This tool really caught my eye since it is very easy to use and has a good handle to grab hold of. The technician just inserts the gauge between the hammer and the strings. If the blow distance is too little, the hammer will be pushed downward by the tool. If the blow is too great, the hammer can be seen to rise when the appropriate key is pushed down. Although better than the ruler, the Baldwin blow gauge also has its faults. Since the measuring portion is fixed it can only be used to set a blow distance of 1%". It also happens to be too big to fit int he allotted space in my tool kit!

The best solution, as is often the case, is to make a well designed homemade tool. Take a piece of wire and bend it to look like Figure 2. The functional part marked (A) used to measure the blow distance can be made to whatever distance is desired. I made three gauges to carry in my tool kit. One is 44mm (1¾"), one is 46mm, the last is 48mm (1%"). They are color coded so that I can quickly select the one wanted. Since they are homemade you can vary the length of the tool to fit your tool case or design the handle so it won't fall from your hand.

An added plus is that by selecting different thicknesses of wire for these gauges the tool can double as a let-off gauge. The part marked (B) in the illustration is held under the string directly at the striking point. As the key is depressed and the hammer

rises to the point of let-off, the technician watches to see it the hammer blocks upon gauge, just touches it, or falls short. After setting a few sample keys for let-off the technician can set the remaining by watching the thicknesses of the strings, as will be explained below.

33) The Let-off

Let us declare some solid ground in talking about let-off. First, let-off is not synonymous with escapement. Re-read the After Touch rebuttal article in the February 1981 Journal if you are not clear on this. Second, the definition that we will use here will mark let-off not as being the point of contact which occurs when the jack is tender is engaged by the let-off button, but rather the point at which the jack fully trips out from under the knuckle and the hammer starts to fall, or else the hammer continues to travel towards the string under momentum. Thirdly, adjusting the letoff does affect to a great degree the evenness of touch, speed of repetition, and the power that the ham-

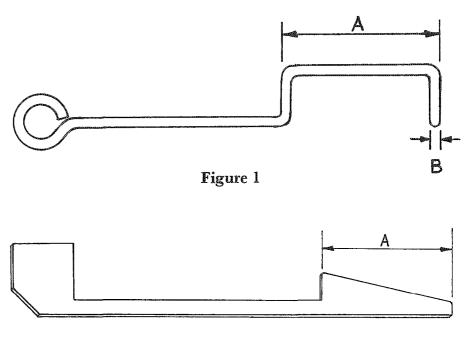


Figure 2

mer has to excite the string. Fourth, the ideal point of let-off is as close as is possible to the string and yet: 1) not be so close as to cause the hammer to block upon the string, 2) allow for seasonal changes in temperature and humidity so that blocking will not occur, 3) the hammer can not interfere with the vibrations of the string, especially in the bass.

The statement has been made to me that for each 1/16th of an inch that the hammer lets-off too far from the string, it results in about a ten percent loss of power. How accurate this is I do not know. But I can guarantee that for the greatest power to be available to the pianist, the technician must set the let-off as close as is possible. This may mean readjusting the let-off a little for concert level work as the seasons change, or as the let-off button felt begins to wear.

Take note that adjusting the let-off as close as is possible is not the same as setting the let-off on every key at 1/4". I strongly feel that 1/4" is too close for some bass strings, and yet way too far away for the top treble. The ideal is to set the let-off in a straight line from bass to treble to insure evenness of touch, but for this line to be tapered as the piano dictates. For concert level regulation, it is certainly permissible to have 1/32" let-off for the top treble! For normal in-the-home regulation, a simple rule-of-thumb is to set the let-off for the plain strings at double the thickness of the string, or just a hair greater to allow for seasonal changes. For the bass let-off. approximately the same thickness as the single strings, increasing to around double the thickness of the thinner bass strings. This would mean that for note #88 with #13 size wire (which is 0.031" thick) doubling this thickness would give 0.062" let-off. 1/16" is equal to 0.0625", so the let-off for this note would then be 1/16". In concert level regulation, the same thickness as the string would give exactly 1/32" let-off for this note.

Be aware that with a tapered let-off the after touch will also become tapered, all else remaining the same. To compensate so that the aftertouch is uniform the hammer line should be similarly tapered. It is interesting that in regulating the let-off, the closer the hammer lets-off from the string not only improves the power that the key gives the hammer, it also improves the speed of repetition! This is in contrast to the way that adjusting the blow distance works. In blow, more power is obtained with a greater blow distance. But this unfortunately results in a loss of repetition due to the fact that the hammer has more distance to travel.

In let-off the power is increased by making the hammer let-off closer to the string, since the jack is under the knuckle for a longer period of time as the hammer rises towards the string. As a result of the jack staying under the knuckle longer, it does not get so far away from the knuckle upon escapement, and hence can return under the knuckle faster giving quicker repetition!

Concluding the jack to let-off relationship, the jack alignment to the knuckle core is the only thing that

really affects the point of let-off, outside of the drop being too high or else turning the let-off button.

This should be easy to see since adjusting the jack to knuckle alignment changes the jack's angle. This causes the jack's tender to be either closer to or farther away from the letoff button, hence causing the let-off to change. In former articles I have stated that raising or lowering the capstan also affects the point of letoff. By using the blow gauges described above as let-off gauges, I have found that regulating the let-off just perfect to this gauge and then changing the capstan does indeed affect this perfect let-off to gauge regulation. Altering the capstan say 1/4" changes the let-off enough that I can feel it by how the hammer contacts the gauge, but the affect is so minute that if I were not using this gauge the change would not be noticeable. I have stated in the past that altering the capstan does affect the let-off since I have found it to be so. For the concert level regulating that we have to do, this knowledge may become important. Nitpicking in this manner must be done in order to achieve the closest to ideal regula-

PIANO SERVICING TUNING & REBUILDING By ARTHUR A. REBLITZ, RTT "The Technicians' Bible"

\$17.50 •\$1.50 SHIPPING & HANDLING THE VESTAL PRESS Box 97 • Vestal 62, NY 13850 (N.Y. Res. Add 7% Sales Tax)



IMADEGAWA

HAMMERHEADS FROM JAPAN

Upright UW. 14lb. UX. 15lb.

Grand

GW. 17lb C-GX. 19lb

Available unbored, standard or custom-bored.

48 Hour service... VISA & MASTERCHARGE WELCOME.
For more information, please write or call....

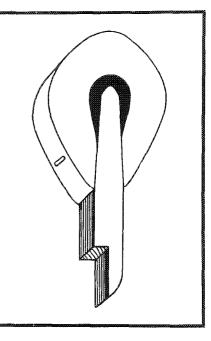
U.S. TECHNICIANS

Robert Marinelli, Pres. **Pianotek.**U.S. Distributor
14237 Harper Avenue
Detroit, Michigan 48213
(313) 372-3954

CANADIAN TECHNICIANS

Paul Smith, Pres.

Piano Technicians Supply Co.
(Pianotek Ltd)
72 Old Orchard Grove
Toronto, Ontario, Canada
(416) 483-9622



SOUND BACKGROUND

SCALES AND TUNING IN ANCIENT HISTORY

Jack Greenfield Chicago Chapter

INTRODUCTION

The systematic study of scales and tuning originated in ancient Greece with the work of Pythagoras in the sixth century B.C. The Asiatics and Egyptians had acquired some knowledge by empirical means for practical purpose but the Greeks were the first to conduct orderly investigation of musical intervals and pitch to obtain scientific knowledge purely for the sake of scholarship.

Phythagoras based his research on his knowlege of the music of the Near Eastern and Mediterranean regions he had acquired during his studies and travels. He founded a brotherhood which continued his activities and advanced the study of scales. The principles of tuning which resulted were the foundation on which the development of European music was based.

MUSIC IN THE EARLIEST CIVILIZATIONS

Music had an important place in the earlier civilizations which preceded the Greeks - in the series of dynasties which succeeded each other in ancient Mesopotamia and in ancient Egypt. Our sources of knowledge about this music include:

- Pictorial representations of musical instruments and activities on sculptured slabs, plaques, pottery and other art remains from archeological excavations.
- Contemporary writings on clay slabs, inscriptions and similar archaeological material.
- Documents written centuries later by Greek scholars based on oral legends and on written material no longer in existence.
- The Old Testament considered an important reference for the history of musical instruments.

ANCIENT TUNED MUSICAL INSTRUMENTS

The earliest evidence of musical activity goes as far back as about 5,000 B.C., left by the Sumerians in Babylonia. There is an abundance of later material originating through a period of thousands of years showing music in scenes of religious, social, military and other secular activities, to a much greater extent in Egypt then in Mesopotamia.

The earliest evidence of tuned musical instruments are pictorial representations from Sumer dated about 3,000 B.C. Two harps, one with five strings, the other with seven are shown on a vase fragment. Lyres appear on Sumerian art works of a slightly later date. The earliest evidence of other types of tuned instruments—reed pipes, flutes and horns or trumpets date from about 2,700 - 2.400 B.C.

One of the oldest and most important archaeological discoveries of the musical instruments, from about 2,500 B.C. was in the excavations of the Royal Tombs of Ur, an important city on the Euphrates river between Babylon and the Persian Gulf. Instruments found included two harps, one presumed to have had 11 and the other 15 strings. Eight lyres, complete or in fragments, were also found. The lyres were large, clumsy instruments, one measuring 47 inches high. The number of strings ranged from 8 to 11.

In Egypt the earliest harps date from at the least the 26th century B.C., lyres from about the 20th century B.C. Both instruments are believed to have been derived from Sumerian instruments.

In later times, lyres became smaller and easier to handle. Lyres on Egyptian art objects are usually seen as small instruments with 7 to 15 strings generally played by women. Harps disappeared from Mesopotamian use about 2,000 B.C., but retained popularity in Egypt where they were

developed further. By 1,250 B.C. Egyptian harps were magnificent instruments reaching a height of six feet or more with 10 or 12 strings.

Lyres and harps as well as other musical instruments are mentioned throughout the Old Testament. The Book of Daniel lists the instrumentation of the orchestra in the court of king Nebuchadnezzar of the Babylonian Empire in the early sixth century B.C. Instruments mentioned include several types of stringed and wind instruments.

ANCIENT MESOPOTAMIAN AND EGYPTIAN SCALES AND TUNING

There is a considerable amount of ancient written material giving the words of psalms, hymns, liturgies and other texts sung or chanted but unfortunately nothing has been found with authentic indication of the music itself. The only information available is that provided by later Greek scholars. To a large extent their writings concern the earlier beliefs in the philosophical and metaphysical influences connecting music, mathematics, astrology and cosmic forces. There are also indications that the Mesopotamians and Egyptians were familiar with some of the theory of musical scales and had knowledge of the relation between the lengths of vibrating strings or columns of air and musical intervals. It is believed that tuning patterns with pentatonic and probably heptatonic scales were in use elsewhere in the near east before they appeared in Greece, Several cuneiform tablets have been found in Mesopotamia, the oldest dating back to 1,800 B.C., which are considered to represent musical notation.

GREEK INSTRUMENTS AND SCALE DEVELOPMENT

Although the music of ancient Greece was primarily vocal, the musical instruments of the time had a strong bearing on scale develop-

ment. Lyres were the most important. The story of the Trojan War and other events that took place in about the twelfth century, B.C., in the *Illiad* and the *Odyssey*, mentions early forms of Greek lyres. Lyres are also shown on some vases of this period or slightly later.

Two different types of Lyres were developed in Greece, the kithara, a larger instrument with a wooden boxtype resonator, played in public performances, and the lyra, a smaller instrument with a bowl-type resonator played privately by amateurs. The lyra used animal skins for the resonating surface. The Greek instruments had curved side arms of equal length to support the yoke or cross bar. Mesopotamian and Egyptian lyres had side arms of unequal length. The strings ran down from the yoke and pressed against a small bridge mounted on the soundboard or resonating surface facing forward, parallel to the strings. The strings were attached below the bridge near the bottom.

The strings of gut were of equal length, but probably of different thickness. They were attached to tuning rings on the yoke which could be rotated to vary the tension for tuning. in the ninth centry B.C. the Greek instruments had three or four strings. The number was increased until the instruments of the fifth century B.C. with up to 12 strings spanning two octaves. Tuning was pentatonic with some notes duplicated in octaves. The kithara and the lyre were played with a long plectrum held in the right hand, the left hand fingers fanned out over the strings and could be used as dampers to silence unwanted strings when the strings were struck together.

The most important traditional wind instrument of Ancient Greece was the aulos. According to tradition, it was brought from Asia Minor about 900 B.C. by the legendary character, Olympus. The earliest evidence of these instruments in Greece, from the seventh century B.C., includes parts of ivory instruments found in Sparta and some vase paintings showing instruments. The aulos was used earlier elsewhere, the oldest found is a silver instrument recovered at the excavations in Ur. Over 50 instruments made of cane have been recovered from Egyptian tombs.

The Greek aulos was generally composed of a pair of slender wood or ivory cylindrical tubes or pipes.

Sound was produced by single or double reeds—historians do not agree on which—mounted on the mouthpieces at the upper ends of the pipes.

The aulos and its music was mentioned frequently in ancient Greek literature. Considerable detail on the instrument is given including a now-famous dissertation by the scholar Theophrastus of the fourth-third century B.C., on selection of cane, preparation, and cutting to make reeds for the aulos.

The earliest instruments usually contained four equidistant finger-holes. As scale development proceeded, the number and placement were modified to conform to the contemporary tuning patterns.

(to be continued)

A Tribute to Floyd Qualls

It is my sad duty to let you know that Floyd Qualls died Monday morning, June 29, 1981, in an Oklahoma City hospital, after undergoing abdominal surgery the previous week.

I became acquainted with this unusual individual when I was eight years old, at the Oklahoma School For the Blind in Muskogee, Oklahoma. All of these years for the greater part, have been spent in working with him in various endeavors, mostly in work with the Blind, and with the Piano Technicians of this country. Floyd and Robert Qualls and I attended our first Technicians Convention in Chicago, in 1946. We were greatly impressed with what was going on, so we joined. The following year we formed a chapter in Oklahoma, our first encounter with organized Technicians was the American Society of Piano Technicians. Later, after the merger, we became charter members of PTG.

This gave me an opportunity to really know Floyd Qualls. Back in school, he was very active. After graduation he was always involved in some endeavor that he thought would benefit the Blind of Oklahoma. I have never met a more dedicated individual than Floyd Qualls, he never

tired of trying to be of service, whether it was in behalf of the Blind, or in behalf of Piano Technicians. He was a leader, respected by all and could communicate well on whatever level he found himself. He played many major roles in his work with the Blind, he filled every position the Organized Blind had to offer, from Board Member to President, locally and nationally. He was just as dedicated to PTG. He served as Regional Vice-President for several years, and received "The Man Of Note" award, as well as being awarded Honorary Life Membership. During his term as R.V.P., he was instrumental in establishing several chapters, out of which came at least three National Presidents.

In later years he accepted a position with the Oklahoma League For The Blind, and served as its Executive Director for several years. As a result of his dedication, the present facility of The Oklahoma League Of The Blind was acquired, a facility that is ranked among the best of its type in the United States. No small wonder the blind of this nation and the Piano Technicians all over, regard Floyd Qualls as a great, unselfish, dedicated leader. Yes! We will miss him. But the fruits of his labor we shall continue to see.

Jesse Lyons Dallas Chapter

COMPLETE HOME STUDY COURSE

IN Piano Tuning, Regulating, Repair

Supplemental personal instruction available through our associate instructors in all states and Canada... or at our school.

APPROVED FOR GI TRAINING

AUBREY WILLIS SCHOOL OF PIANO TUNING P.O. Drawer 15190 Orlando, Fiorida 32808 Telephone (305) 299-3690

Convention '81

"A Public Thanks"

George Defebaugh Institute Director

After our return from the Annual PTG Convention at the San Francisco Hilton, we did receive some nice comments on the general quality of the 1981 Technical Institute, variety of subject matter, choice of instructors, etc. Having a pretty good idea what it takes to produce a successful Institute (20/20 hindsight) we want to take the earliest opportunity to publicly thank those who "made it happen".

Space does not permit the luxury of listing each independent instructor, each Tuning Tutor, each class title, each local Piano Dealer who furnished Institute Pianos (at no rental fees) or each of the Manufacturers who so generously sponsored their Technical Representatives to serve as Institute Instructors. But, we do say most sincerely ... "WITHOUT ALL OF YOU THERE WOULD BE NO IN-STITUTE". A hearty THANK YOU!!! and ROYAL SALUTE from all PTG.

We would also like to take this opportunity to thank some of the "behind the scenes" people who worked tirelessly to make a sometimes disrupted schedule appear to operate with cool, calm efficiency. The Home Office Staff who helped in every way possible, in every emergency (real or imagined) ... Mark Schecter, local Properties Chairman, who finally came into his own as a master piano mover coordinator ... And last, but not least, Richard Davenport, Assistant Institute Director, who not only worked countless hours arranging and rearranging classroom schedules, but was on the job from 7:00 a.m. to 5:30 p.m. to help "keep the show moving". LADIES AND GENTLEMEN ... THE AP-PLAUSE IS YOURS.

Past National Presidents Attending 1981 Convention

Wendell Eaton

Errol Crowl John Travis Don Morton Charles Burbach Erwin Otto Jess Cunningham George Morgan Ken Kadwell



Outgoing President Bob Russell gives his farewell speech to members of the Guild.



Incoming President Sid Stone, with wife Alice, making his acceptance address.



1981-82 Board of Directors, left to right: Richard Flegle - RVP, CW, Robert Smit - RVP, NE, Marshall Hawkins - RVP, SE, Bob Russell - Immediate Past President, George Peters - RVP, CE, Sid Stone - President, Charles Huether - Secretary/Treasurer, Ernest Preuitt -Vice President, Dan Evans - W RVP, Tom Blanton - RVP, SC,

Presidential Citations

Jack Krefting, Presidential Citation for his work as Technical Editor of the Piano Technicians Journal

Ronald Berry, Presidential Citation for his work as Chairman of the Tuning Examination Committee

Man of Note Award

Don Morton

Golden Hammer Awards

Jack Sprinkle Herman Koford

Chapter Achievement Awards

SMALL CHAPTERS Honorable Mention - Vancouver Island Third Place - Western North Carolina Second Place - Southern Tier, NY First Place - Syracuse, NY

INTERMEDIATE **CHAPTERS**

Honorable Mention - Baltimore, MD Third Place - Northeast Florida Second Place - Western Massachusetts

First Place - Puget Sound

MEDIUM SIZE CHAPTERS

Honorable Mention - Pittsburgh, PA Second Place - Reading - Lancaster

First Place - Cleveland

LARGE CHAPTERS Second Place - Washington, DC First Place - Connecticut

CONVENTION REPOR

Now I know why an organization such as ours needs a person such as Don Santy: to get people to do things. This time I found myse! walking away from the closing luncheon of the 1981 National Convention in San Francisco realizing I'd just agreed to write a report about it. Well, Had I known about this in advance I would have taken better notes, to say nothing of pictures, but I didn't. Rather than providing in-depth coverage, then, this report will be a letter to all of you out there, friends and colleagues, who weren't able to be here; I hope it will give you some idea of what the convention was like for the 735 of us who did attend. There's no substitute for being there but I'll make an attempt: if I leave anything or anybody out, please forgive me and, next year, YOU do it.

First, and of the most importance: classes. I tend to pick which I attend by the instructor as much as the subiect matter: we are fortunate to have in the Guild so many fine technicians who also can and will teach, I started this year taking Grand Hammer Installation with Willis and Dave Snyder where we saw Willis' slides, including some remarkable close-up shots (magnified 200x) of hammer felt. We then travelled shanks, reamed and glued on hammers, and trimmed and shaped the tails on 6-note "action rails" using a corresponding model of the Snyder's hammer-hanging jig. The extra work of making this a hands-on class was definitely appreciated. Next (you can tell I'm into rebuilding) I went to the Baldwin class on grand dampers with Willard Sims and Jack Krefting where closed-circuit TV enabled all of us to see what they were doing with felt and dampers at the front of the room. There were also opportunities for members of the class to risk their reputations demonstrating skill with wire benders. In his class, Lew Herwig performed an expoxy repair in a soundboard (at a demonstration made possible by simply moving a large section of an old board and bringing it to class). For his pinblock class he had various pieces of pinblock and information about them: new, old, doped,

delaminated plugged, epoxied. resined and so forth. Unable to decide where to go next I jumped from class to class and saw that, as I suspected, Fred Drasche knows all there is to know about trapwork, Steve Fairchild is doing amazingly accurate tuning (electronically and mathematically aided); Newton Hunt is doing the same by ear; and Leon Levitch offered aid and comfort to the beginners in this area. I listened to Ernie Juhn talk about "things" in vertical pianos and finally realized that "thing" is what Ernie calls all piano parts which have problems - he's too busy explaning the solution to get bogged down in nomenclature. (Speaking of which, we all received in our registration packets a soft-cover copy of the nomenclature book compiled by Merle Mason, now out in a second edition).

The next day I got stuck on the BART coming in from the East Bay and missed John Bloch's class, which was a shame because I doubt if there's a type of bridge he hasn't run into and replaced, repaired or redesigned (no, no, not the Golden Gate - piano bridges). I did see enough of Frank Stopa and Wally Brooks talk on fitting new keys and actions to grand pianos to know I need to take that class again. Klaus Fenner's class on elongation and creeping of music wire I did take twice, finding that I have some misconceived ideas about music wire. Now at least I understand that elongation (as the term is used here) refers to the elastic stretch of music wire. (which springs back when tension is released) and creeping is the plastic or permanent stretching which also occurs under tension but remains when tension is released. Due to uncertainties about his schedule, this class was not added to the program until the last minute but I hope we may see more of Mr. Fenner in the future so others will have a chance to benefit from his expertise. I saved my last afternoon to go to the Yamaha aftertouch class. All I can say is that the people who design their pianos must design their teaching graphics also, for they are very effec-

Susan Graham San Francisco Chapter

tive. Of course it helps to have LaRoy Edwards, Jack Caskey, Andy Nishio and Kenzo Utsonomiya along to teach. They gave each student a large tail-support block and a piece of garnet paper (usually used in grand voicing) and showed us how to combine the two into an aid for setting letoff in a vertical plano (and explained what it has to do with aftertouch). Like everyone else in Ben McKlveen's class I nearly had heart failure over the dealer prices for new pianos and appreciated his suggestions for appraising and evaluating pianos for

today's market.

Well, that's what I saw but there was so much more that I couldn't attend and regret not seeing. There were two hands-on regulation classes - grand actions with Kimball and vertical actions with Wurlitzer, with the companies supplying action models and tools. Norm Neblett's voicing class was as popular as ever and since I've seen it before I didn't feel justified taking a seat, and I passed on Allen Foote and Wendell Eaton (Climate Control Installation), the Calculating Technician with Dave Roberts, Tools Tools Tools with Francis Mehaffey and Key Recovering with Ed Solenberger for the same reason. Classes I should have seen because I bet I'm going to need the information included Business Building and Organizing with Phil Bashaw, Jim Harvey's class on felts and Ed Whitting's on friction in the grand action. When I come across a broken agraffe, tuning pin or screw I'm really going to regret missing Paul Bergan's class. Classes that I probably wouldn't use in my particular business but still would have liked to attend for my general education included: Fender-Rhodes servicing with Harold Rhodes, who was called away for an emergency and replaced with Steve Wodyard. player classes with Raye and Ruth McCall, Norm Heischober, Bob Snyder and Lew Berger of Aeolian, the harsichord classes with William Kasimoff and the touch-up and refinishing classes: lacquer with Wayne Clevenger and polyester with Lee Sankey. I also passed up the chance to work on rebuilding a grand

Convention '81_

piano (in a hotel?!) in a special class with Bob Burton, Sheldon Smith and Ken Kadwell.

One of the things some technicians find more helpful than any other convention activity is private tutoring in tuning. This year 28 had pre-registered for this but when the convention opened there were a total of 44 desiring such help so several instructors and local specialists such as Ed Whitting, Lee Sankey, Peter Wolford, Jim Coleman and Al Sanderson were pressed into service along with the scheduled Ruth Ann Jordan. Don Morton, Fred Odenheimer, George Morgan and Donald Strong. For those who consider themselves at the other end of tuning education there was testing for potential certified national examiners run by exam committee chairman Ron Berry and conducted by Jim Coleman, Al Sanderson, Wayne Matley, Olan Atherton, Brian De Tar and Guy McKay. There was also a demonstration of the test (in place of the usual closing tuning concert) conducted by Jim Coleman with George Defebaugh as the "examinee", and, yes, George passed.

Speaking of running things: it's time to mention and thank once again all those nice people who do the work of the convention so we can have the fun. Of course the Home Office staff has been preparing for months, as well as local chairman Jim Bryant and San Francisco Chapter president Shawn Skylark. Institute Director George Defebaugh rounded up all the instructors and spent the time before-hand scheduling and organizing things. Then he and his able assistant Richard Davenport and local properties chairman workhorse Mark Schecter spent the entire week re-planning, re-organizing, moving and re-moving and in general taking care of thousands of unexpected problems which always arise at the last minute. It sure wouldn't have been much of a convention without their efforts and George, if you're running out of wall space for all those plagues, it's your own fault for being so indespensible.

The Board, Council and Regional

Caucuses met and conducted business - thanks to them for all the hours of work and care it takes to keep our organization going. Congratulations and good luck to the new Board: President Sid Stone, Vice-President Ernie Preuitt, Secretary-Treasurer Charlie Huether and the RVP's: Robert Smit (Northeast), Marshall Hawkins (Southeast), George Peters (Central East), Dick Flegle (Central West), Tom Blanton (South Central) and Dan Evans (Western).

Speaking of congratulations, the well-deserving Bob Burton was elected to the Hall of Fame; typical of Bob is that he was so busy getting ready to teach his class he wasn't even at the opening ceremony to receive his award.

Apart from the classes, there are countless activities. The exhibition center was a bustling place with the supply houses' "supermarket" and displays set up by various manufacturers and other services. Anyone who came away without one of those famous-decal T-shirts and a PTG mug (not to mention strips of damper felt, a new bending pliers and a very fancy checkering file) must have more willpower than I. Pianos. pianos, pianos; old friends like the Baldwin SD-10 and the Steinway B and the Walter products, and some new ones - Steinway back-in-production full-size Model K upright: Currier's fabricated-plate vertical: the Excelsior piano kit. Yamaha held a party co-hosted by their local dealer. Leuenberger Yamaha Piano & Organ. and unveiled their new 6'4" grand which we played, examined and thoroughly enjoyed. Steinway hosted elegant pre-banquet cocktail where we had a chance to meet Peter Perez, the new company president.

Other entertainment included a movie night (showings of various technical films) and a Dixieland band (The Royal Society Jazz Band featuring the Santa Clara Chapter's own Rod Dieter) at the opening ceremony. I missed the banquet but I did wander in at the end in time to see two men in firemen's hats playing a dual piano version of "Ritual Fire Dance" by Manuel de Falla (capped off by an

exploding flare in mid-stage). Needless to say, by that time half the Guild was rolling on the floor in laughter. Who were those masked men? Bob Young and Norman Landsberg. At the closing luncheon Larry Crabbe's barbershop chorus of intune tuners brought down the house and we all left in a suitably harmonious mood.

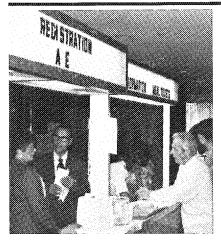
In a city like San Franciso and a state like California there are endless numbers of things to see and do and so every evening the lobby was full of folks with sore feet who'd been to Chinatown, Fisherman's Wharf and Golden Gate Park or even to the Napa Valley wineries or Carmel-by-the-Sea. The weather cooperated with a heat wave and so few of us actually needed those winter coats we were warned to bring.

What else can I tell you? Some things are different. I take great pleasure in never being the only woman in class any more, and I notice the average age is dropping. It seems fewer and fewer of us can afford to stay in the main hotel, which is a shame; the Guild loses some free meeting rooms and we all miss the experience of being together under one roof for a week. Facilities at the Hilton were spacious and well-set-up but I hope some solution can be found to the problem of expense.

Well, now it's over and here I am; exhausted from trying to keep up with it all but my head is buzzing with ideas and I'm eager to get back to work. I think this is really what a convention is for and why it's always worthwhile to attend: You see some things, you miss some, some things are new and some things are the same, but you come away with a real charge about pianos and the profession of maintaining them. Now I've got to get back to it for the next 11 months and I'll see you in Washington, DC!

Susan Graham

Photos by Wayne Clevenger and Frank Mace.



Left: Marilyn Johnston, Registrar and Joe Epler, Convention Manager, discussing registration with Don Morton, Past President.

Right: Super Convention hosts Jim Bryant with wife Ginger and daughter Chris, planning banquet seating.



registration





Far left: Sid and Alice Stone and Luellyn Preuitt watch as President Bob Russell and Mrs. Russell cut the ribbon for the opening ceremony.

Left: The Bay Area Rambler Famous Dixie Band leads the way.

Right: Secretary/Treasurer Charlie Huether enthusiastically calls roll.



opening ceremony







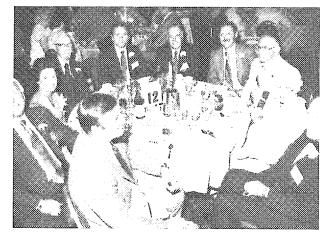
Left top: The Auxiliary members meeting.

Left bottom: Board members, Belva Flegle, Agnes Huether and Julie Berry.

Above: Outgoing Auxiliary Board; Julie Berry, 1st Vice President, Bert Sierota - Recording Secretary, Agnes Huether - Corresponding Secretary, Belva Flegle - Treasurer, Luellyn Preuitt - Editor, Jewell Sprinkle - President, Missing: Shirley Traux - 2nd Vice President, Ginger Bryant - Parliamentarian & Historian.

auxiliary.

Convention '81













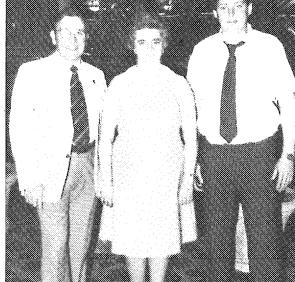
banquet











candid shots.



technical institute.

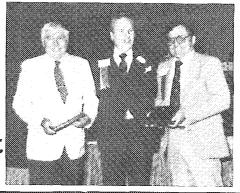
Convention '81





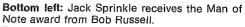


chapter achievement awards





Far left: Jack Krefting receiving the Presidential Citation Award from President Bob Russell for his work as Technical Editor of the Piano Technicians Journal.

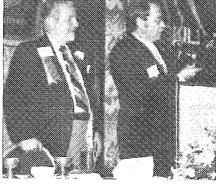


Top center: Sid Stone presents the Past President Award to Bob Russell.

Bottom center: Ronald Berry receives a Presidential Citation Award for his work as Chairman of the Examination Committee.

Below: Don Morton, recipient of the prestigous Golden Hammer Award.













On Saturday, July 11, 43 of us arrived in Honolulu on the beautiful island of Oahu. We received a lei and kiss of official welcome from Bob and Roger, our tour guides. Our stay in Honolulu was at the beautiful Hilton Hawaiian Village on Waikiki beach. Our first afternoon was for exploring and an orientation meeting in the evening, and we were told to hang loose and relax. Well, Bob Russell did just that — he said he would see his backside in the morning and his face in the evening, and that is exactly what happened.

The technical session in Honolulu included demonstration of a Dampp-Chaser unit by Allen Foote and a contest led by Sid Stone. Sid called out numbers and we would name piano keys. The contest was won by Lee Dobrins of New York. Robert Hofstetter of Soquel, California gave a lesson on improving your business by using your telephone.

On Monday, the 13th, everyone went his own way. Some of us rented cars to drive around the island. We saw sugar cane fields, pineapple plantations and beautiful scenery and visited the Polynesian Cultural Center.

That's where we learned about the native customs, among them the wearing of flowers on the head. When the flower is worn on the left side of the head, the lady is married and satisfied. When the flower is on the right, the lady is looking. The flower worn ontop of the head means the lady is married but still looking. On the back of the head? The lady is saying "follow men." The flower worn on the front means the lady doesn't know whether she is coming or going. Other activities we enjoyed on Oahu were swimming, shopping, scuba diving, luaus, the Jim Nabors show and a visit to Pearl Harbor.

John and Genevieve Travis celebrated their 38th wedding anniversary on this trip. John also fulfilled his dream of seeing the Arizona Battleship Memorial in Pearl Harbor, on which he lost two friends in World War II.

Earl Gardner tuned a piano while in Honolulu. He needs only two more states (Alaska and Arizona) to realize his goal of tuning pianos in all 50 states.

Tuesday the 14th we flew to the Kona Coast of the Island of Hawaii. We found ourselves surrounded by the charms, traditions and natural beauty of this secluded island retreat. We visited the oldest church in the state (dedicated in 1837) and the historic Hulihee Palace, the summer place of the Hawaiian kings. One of the most spectacular sights on the island was the giant crater of the Kilauea volcano in the Hawaiian Volcano National Park, Many of us drove around the rim of the volcano. John Travis summed up this experience when he said, "It made me personally feel so small and God so very, very great." Several people drove to the other side of the island and enjoyed the lush vegetation and waterfalls. While driving around the island, Al Lafosse stopped in Hilo to renew his acquaintance with the widow of a wartime buddy.

Wendell Eaton felt that one of the most memorable occasions was see-

ing new president Sid Stone spell out the initials "PTG" in white coral rock against black lava rock. This was along the highway leading to the airport on the island of Hawaii.

Sid Stone presented our technical session at Kona, a test about common sounds that come from pianos. The test was called "Name That Noise." Actual sounds were recorded, and we had to tell the source of the sounds, such as sheet music against strings, pencil on soundboard, loose hammer head, etc.

Our last stop was the ultimate for rest and relaxation, and I think most of us were ready for this. The Wailea Beach Hotel on Maui is located on a beautiful, lush, isolated beach. J.B. Tolbert felt the management was nice because they even turned off the waterfall at 10 PM and turned it on again at 7 AM so we could have a restful night.

Dick and Pearl Kreitz liked Maui because of its serenity and beauty. Ron and Julie Berry enjoyed swimming in the ocean at sunrise and strolling along Front Street in a former whaling village. Kerry Nicholson went scuba diving on all three islands, but his most memorable dive was off the coast of Lahina, on the island of Maui. He descended to a depth of 120 feet to visit the navy submarine USS Bluegill. Bob and Ginny Russell gave themselves this trip for their 25th wedding anniversary. Bob prided himself on the fact that he had Hawaiian food at every meal on the entire trip. Bob and Ginny can also say they have been in all 50 United States.

Sid missed having Alice along, but he did enjoy throwing his dirty clothes in the corner, leaving his suitcase open, strewing toilet articles all over the counter, eating desserts with every lunch and dinner and spending money like it was going out of style.

We were all reluctant to leave the islands, but we did have one optimist in the group who was going to Las Vegas to recoup the money he had spent. All of us on the tour want to thank Sid Stone for his leadership, hard work and conscientious planning which made this trip so successful. We also want to thank the others who helped organize this trip.

Mahalo (thank you),

Alpha Tolbert

In the Field

Ben McKlveen Cincinnati Chapter

Recently a client of mine told me a story about an experience which I would like to share with you. The lady, a substitute teacher, was called to teach English at one of the local high schools. When she arrived at the school she was briefed by the assistant principal concerning her classes and other duties connected with her day's work. These "other duties" consisted of a partial period of cafeteria duty and monitoring the girls' rest room in her part of the building. The rest room chore, to be done between classes, was to curtail cigarette smoking, dope smoking, fights or unruly behavior.

Teaching and cafeteria duty did not worry her in the least; she was a trained teacher and that is why she was there. But the rest room checking scared her to death. She was a non-smoker and not experienced or knowledgeable about the current drug scene, so she was in a state of

high anxiety as she walked into the rest room for her first check. Huddled over a wash basin were two young girls with what looked like funny little brown cigarettes hanging out of their mouths. She nearly fainted, but mustering her courage, she advanced toward them and shrieked, "Girls! What are you doing?" What she thought she heard the girls reply was. "We're smoking a reefer, Man!" "Oh, my God, this is it!" she thought. But as she got closer to the sink, the funny little brown cigarettes turned out to be oboe reeds. Clearing her mind for a moment she did an instant replay of the girl's reply. What she actually heard was, "We're soaking a reed for band." (For those of you under 40, back in the olden days a "joint" was called a "reefer" and pot was not called "grass"; it was called "tea", among other things. This anthropological trivia is included for the sake of clarity. The teacher in this story was over 40.

Servicing pianos for a living involves more than just doing work on pianos. It involves interaction between people. Conversation is a large part of this interaction. Listening to our customers and reacting positively is critical to our example of a person under stress expecting the worst and "hearing" what she feared she might hear. To be successful piano technicians we must train ourselves to listen objectively to what customers are saying and then decide what we can do to help them. This can pose problems sometimes. We need a certain amount of confidence in our ability to overcome our own negative reactions. We need to be able to interpret what our customers, with their limited technical and musical vocabulary, are trying to tell us.

Consider the following remarks you have all heard many times:

"There is a sticky key." This could mean that because of a tight bushing, a key does stick. Or perhaps misalignment causes two hammers to rub together, or a damper is hanging up, a shank is broken or a plastic elbow has snapped. To the customer this is a sticky key. Our job is to organize our thinking to include all of these possibilities when this is mentioned.

"The piano slipped," is a great line that we have all heard at some time, when actually the piano could have gone sharp as a result of a change in the humidity.



A customer described a problem with his action by saying, "When I'm playing I feel that I lose control." He was describing poor escapement.

Several years ago I discovered what I call the "Lockstead phenomenon", named after the customer who first expressed it. She wanted the treble section of her piano tuned much higher than I was accustomed to tuning. She expressed herself very directly and clearly, and I understood immediately what she wanted. It took three attempts at retuning the treble before I got it where she wanted it, but she was absolutely thrilled with the sound. The problem was that her former tuner thought she was being critical of his tuning and he reacted angrily by handing her the tuning hammer and saying, "Here, you do it." He lost the customer.

I have another customer with this same kind of ear. The solving of his tuning problems was more protracted and painful simply because he was not articulate in expressing his desires. I had tuned his piano several times and heard no complaints. Then I learned that a friend of mine was tuning for him. Then he switched back to me again but insisted that he be there when I tuned. When I arrived he waited for me to begin and as I struck my tuning fork he turned and said, "You can set that just as high as you can." "Whoops!" I thought, "What is this guy trying to tell me?" With questioning I learned that he had never liked the way any tuner had tuned the treble of his piano. It always sounded flat to him. Once I established a pattern of stretching that he liked, he was delighted and has been my customer and friend since then.

Piano owners are aware of their vocabulary problem in describing their piano difficulties. It shows itself in peculiar ways. A person who is speaking to someone who does not understand English easily has a tendency to speak loudly to overcome the frustration of communication. Likewise, piano owners feel frustrated in telling us what is wrong and they often exaggerate the problem so as to be sure to get our attention and sometimes they can be rather unpleasant in the manner in which they tell us. It takes great patience to wade through these encounters. Confidence is your own ability is vital. It keeps you from caving in and reacting with anger, thus losing the customer and leaving the problem unsolved.

We all need an ability to explain and to teach our customers what they

need to know about their pianos. So in addition to being good patient listeners, we need to be good articualte talkers as well. I do not like approaches to piano service based on scare tactics or super economy prices. I prefer to work with my customers by trying to give them the service they need for a fair price. Some impressions I try to get across in my conversation:

- 1. I want them to understand some of the basic things about their piano.
- 2. I want them to enjoy their piano and know that my service is directed to this end.
- 3. I want them to feel that I am confident about my ability.
- 4. I want them to know that I am available if they have trouble.
 - 5. I want them to know I am fair.

Confidence and patience are two attributes that allow us to go to work without worrying about what we might hear. They free us to work as "positive professionals" and to avoid what the English teacher experienced in my earlier story.

Registered PTG Trademark

The words 'PIANO TECHNICIANS GUILD, INC.' and its trademark or logo are registered with the U.S. Patent and Trademark Office, and are the exclusive property of the Piano Technicians Guild and its members. Unauthorized use is strictly prohibited.

The Piano Technicians Guild has received a letter from the Guild attorney advising that all members and subscribers be notified of the above statement. In future printings of pamphlets, etc., the essence of the statement will also be reproduced as a warning against unauthorized use of the name or logo.

We at A. Issac Pianos are pleased to offer the technicians of North America

THE ALTERNATIVE IN HAMMER DESIGN

With the aid of both pure and applied research we've designed the moment of impact of our hammers to bring out the complete tone spectrum of which your piano is capable.

To impart to our hammers this unique, pleasing and inherently musical quality we use the finest, high-density, long-fibered felts available and sound, hard, maple moldings.

While being glued to the moldings our felt is held under high compression and high tension simultaneously. To permanently build this tension into our hammer, we wire it through and lock the tension in with stainless steel wire. The bore on our hammers is individually graduated to an accuracy of 1/20th of one degree. Bore diameters are selected to save you hours of work when instaling our hammers.

If you're looking for that extra dimension once known as piano tone — our hammers have it.

Upright hammers 90.00 Grand hammers 100.00 Concert Grand hammers 130.00

Tapered tails, add 10.00

If any of our hammer sets does not meet with your approval it will be replaced free of charge. All orders for hammers and bass strings for the same piano are subject to 5% reduction.

24-HOUR TELEPHONE SERVICE — CALL (416) 226-1171



THE TUNER

Paul Monroe Orange County Chapter

Muting the piano. There are many methods of muting a piano. Through the next few years you will probably experiment with several methods attempting to find the one that you like best. To save confusing you at this point by describing several methods, I will give you the method I use.

You will need the following material and tools: Medium thick (green) action cloth in strips 1" x 52". Cut in half the full length leaving you with two strips ½" x 52". You will need at least three lengths for a vertical.

Rubber mute with a metal handle. See **Figure 1.** I suggest you tie a length of flange cloth to the handle, about 12" long. If the mute slips behind the action it is easier to find and remove.

Strip mute inserting tool. You can use a thin blade screwdriver such as used in the combination handle. Some technicians use a stiff piece of metal such as spring steel the thickness of a sounding board steel, ½" x

6" long. If you use spring steel, I suggest you attach a wood handle to one end leaving an inch or two exposed. There are many methods of attaching a wood handle so I'll leave that problem in your creative hands.

Make sure the tool you use to insert the muting strip isn't thick enough to cause the strings to move on the "V" bar in the vertical or the capo bar in the grand.

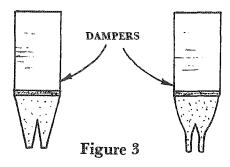
Start muting at the top of the treble end of the piano and proceed downward. The first strip should take you through the treble section to the tenor break. This depends on piano design and how large you make the loop over the unisons. See **Figure 2**. The loop must be high enough to allow the middle string of the tricord unison to vibrate freely.

As you progress through the treble section and pass by the first damper, depress the sustain pedal to lift the damper off the string. It will prevent possible damage and give longer life to the dampers. This is especially true

of the bicord and tricord damper felt.

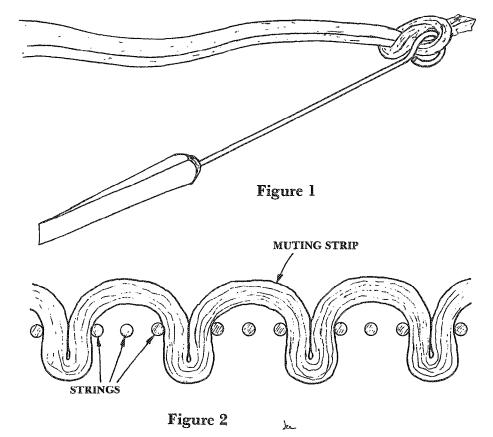
If the dampers are in their rest position and you move the string by pushing in the muting strip (and you will) you will damage the tricord and bicord dampers by crushing the felt. See **Figure 3.** Take time to be careful and be a craftsman.

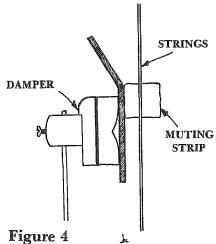
With the muting strip inserted in the treble section you will find in most pianos that the hammers will hit the felt strip. To eliminate this problem,



depress the sustain pedal, reach in to the damper heads, pull towards you and with the other hand push the muting strip down and behind the damper felt. Be extremely cautious and do not damage the damper felt in the process.

Some technicians have fabricated a metal strip to place behind the damper felt, which would allow you to pull the dampers towards you, push the muting strip down as stated before and prevent any damage to the damper felt. See **Figure 4**.

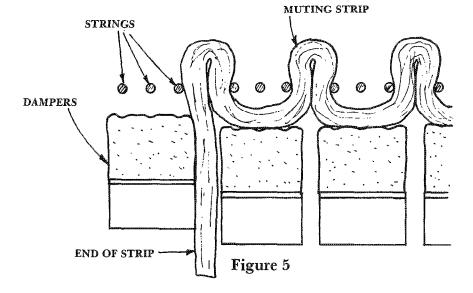




There will be a length of the muting strip left over at treble-tenor break. Slide this piece in between the damper heads as in Figure 5.

Continue muting the tenor section ber to leave one string free in the bi-

with the second strip, remembering to depress the sustain pedal to lift the dampers off the strings. Also remem-



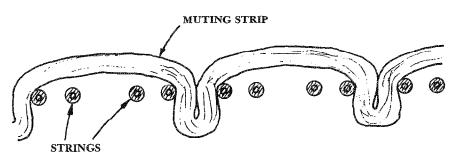


Figure 6

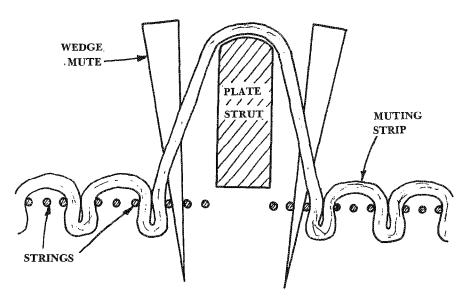


Figure 7

cords, see Figure 6. The reason is simple and obvious.

The third muting strip is for the bass section. Lift the dampers off the strings and proceed to mute.

A helpful hint to those with astigmatism: After you have inserted the strip between the first unisons, count four spaces, push in the mute, count another four spaces, push in the mute etc. etc. On most spinets (and some consoles) the wound strings are spaced close and even. If you have astigmatism like I have, it is difficult to keep the strings in focus.

The rubber mute can be used on the last unison of the tenor section at the bass-tenor break and for the unisons at the tenor-treble break. I also use it on unison 88, placing it between strings #1 & #2.

On to the grand. The method is similar. Due to the more delicate nature of grand dampers, it is even more important to make sure the damper felt is lifted off the strings when you are muting the piano.

The only additional tools you will need will be six rubber mutes, 1/2" x 4". These will be placed at note 88 and at each of the breaks. See Figure 7.

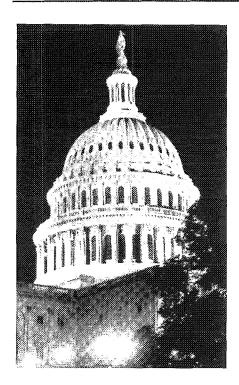
There is one very important thing to remember and that is the tuning pin. MAKE SURE when you are tuning that your hammer is on the correct pin; where the string is free and not

This brings to mind a rule I learned the hard way. If you turn a tuning pin and nothing changes, no pitch change, no change in the beat rate, you are most likley on the wrong tuning pin. Train your subconscious to react very fast to the change, or lack of change.

As in the vertical, I start muting at the treble end and progress towards the tenor section, keeping the muting strip on the bridge side of the dampers as far as possible. For the lower tenor section and the bass section, mute on the other side.

There are many reasons why I prefer this method, the most important of which is to make sure all you are hearing is directly related to the interval you are tuning and not an unrelated frequency generated by a poorly muted string. All audible frequencies have a direct influence on the beat rate of an interval including any bleed through on a muting strip that isn't snug to the string. It will even influence a scope, at least it does on my ST-11.

Next article will begin discussion of the temperament.



MEMBERSHIP POINTS

Five (5) points will be credited for bringing in a new registered technician, four (4) for an apprentice, three (3) for an allied tradesman and one (1) for all other memberships.

PRESIDENT'S CLUB

Those who achieve 15 points will receive the President's Club ribbon. At the Awards Banquet each will be presented with the 1982 President's Club pin, and the member who has the most points will be announced and honored.

RESTORER'S CLUB

Those who bring in a former member will receive the Restorer's Club award ribbon in addition to the point credits.

BOOSTER CLUB

Everyone who brings in a new member will receive the Booster Club ribbon at the convention.

NOTE:

Your name and your own chapter should be shown IN PRINT on the candidate's application on the line "recommended by", for your guaranteed full point credit. (Sometimes credit cannot be applied because the sponsor's name cannot be deciphered).

CORRECTIONS

Should there be a need for correction on the Booster Club or other lists, please notify the Home Office promptly. We want you all to receive full credit at all times.

Don't Watch Us Grow— Be A Part Of Our Great 25th Year



By Ernie Preuitt Vice President

Twenty-five years ago, farsighted people recognized a need to make a joint effort to organize two groups—The American Society of Piano Technicians and The National Association of Piano Tuners. A united organization was needed to achieve the highest possible service standards and to promote the technical, economic, and social interest of Piano Tuner-Technicians most effectively. An August 21, 1958, the two groups incorporated and became known as The Piano Technicians Guild.

At the first annual convention in Washington, D.C. in 1958, 1000 members were listed in the convention program-roster. Since then we have tripled our membership to over 3000 members. Our 25th anniversary convention will also be held in Washington, D.C. and if we want to triple our membership again in the next 25 years we must work together to achieve that goal.

Each month you will see on these pages, thoughts and ideas on membership in the Piano Technicians Guild. For any organization to grow and prosper, it must have new people coming into its membership on a continual basis. Some organizations have a closed membership permitting only up to a certain number of members. The Piano Technicians Guild is not one of these. We want every qualified member we can get. Our basic requirement for registered technician and apprentice applicants is that they pass certain tests which we have developed and administer. Affiliate members (overseas), allied tradesmen, associate members and students are not given technical tests.

It certainly seems reasonable to me that each of you who services pianos

would want to be a part of those who are working to help improve your standard of living—and the best way to arrive at that standard is to improve skills through the Institute of Piano Technology at our annual conventions, the many regional and state conventions and seminars; and greatest of all at local chapter meetings. All of these provide an excellent opportunity to learn of new techniques and so to improve special skills.

YES, we want the Piano Technicians Guild to grow and we want YOU to be a part of it. There are two ways we can grow: they are greater participation on the part of those members we have, and the influx and input of new people.

So as our new membership year begins, wouldn't it be great if every member of the Piano Technicians Guild would renew active membership by regular and enthusiastic attendance at chapter meetings? Those of you who do not yet belong "Be ye neither bashful or foolish". Attend a meeting, even without invitation for maybe we don't know you are out there. If you are highly skilled we would love to have you share you knowledge with us.

Members, please write to me of your enthusiasm and how you convinced others to join the Guild. We will pass on the good news to others through these pages.

Of course, we want to grow. We MUST grow. So, please don't just watch us grow—come be a part of it and help us grow. We have had a grand 25 years. Wouldn't you like to be a part of the next 25 years of progress?

1980-1981 MEMBERSHIP AWARDS

"CROSS OVER THE BRIDGE"

1981-1982 MEMBERSHIP BOOSTER CLUB

Booster Club P	ts. Mbrs.
BITTINGER, Dick	1 1
BULLOCK, William	5 1
CRABB, Larry	2 2
HARRIS, Dale	5 1
HESS, James	5 1
NELSON, Robert	4 1
SCOTT, Dennis	1 1

See points score rules on opposite page.



1981-1982

RECLASSIFICATIONS.

The following members have passed the required examinations to be reclassified:

REGISTERED TECHNICIAN

CASTRONOVO, Linda
New Jersey Chapter
KIRSCHNER, Jack
Ottawa Chapter
LONG, David
S. Central Pennsylvania Chapter
WHATNOUGH, Alan
Ottawa Chapter

OTHER RECLASSIFICATIONS

(No examination required)

ASSOCIATE Reclassified from Allied Tradesman

ROBERTS, Gail Fresno Chapter

NEW MEMBERS REGISTERED TECHNICIANS

Detroit-Windsor, MI Chapter

GANZ, Steven A. 3148 Nokomis Trail Port Huron, MI 48060

Mississippi-Gulf, FL Chapter

TOWNSEND, James S. Rte. 4, Box 500 G Columbus, MS 39701

APPRENTICES

Connecticut Chapter

BIRCH, James S. 56 Nashville Road Bethel, CT 06801

Los Angeles, CA Chapter

McBRIDE, Deborah L. 4190 Baldwin Avenue Culver City, CA 90230

South Central Pennsylvania Chapter

ANDERSON, Clifford F. P.O. Box 9 Blue Ridge Summit, PA 17214

Member-At-Large

ROSE, Don R. Box 1958 Moose Jaw, Saskatchewan Canada S6H 7N7

ASSOCIATES

Atlanta, GA Chapter

ALRED, Steven C. 4821 Sherry Lane Acworth, GA 30101 LYON, Silas T. 5573 Woodberry Circle

Marieta, GA 30067

Orange County, CA, Chapter

RIPLEY, John A. 1233 Devon Lane Newport Beach, CA 92660

AFFILIATE

Member-At-Large

RODGERS, Jr., Benjamin F. Box 70 Binictican FPO San Francisco, CA 96551

STUDENT

Fresno Chapter

CASHION, Jack C. 875 W. Pico #103 Clovis, CA 93612

THE AUXILIARY EXCHANGE

JULIE BERRY

1981/82 Auxiliary Board

Officers

JULIE (Mrs. Ronald) BERRY, President 6520 Parker Lane Indianapolis, IN 46220

BELVA (Mrs. Richard) FLEGLE, 1st Vice President 1920 South 1st Street #904 Minneapolis, MN 55454

SHIRLEY (Mrs. Richard) TRUAX, 2nd Vice President R.D. #8, Box 40-E Heather Drive York, PA 17403

BERT (Mrs. Walt) SIEROTA Recording Secretary 5201 Whitaker Avenue Philadelphia, PA 19124

AGNES (Mrs. Charles) HUETHER, Corresponding Secretary 34 Jacklin Court Clifton, NJ 07012

GINNY (Mrs. Bob) RUSSELL, Treasurer 1414 Lander Road Mayfield Heights, OH 44124

JEWELL (Mrs. Jack) SPRINKLE, Immediate Past President 6033 North 19th Road Arlington, VA 22205

תתתתת

Editor, Auxiliary Exchange

JULIE BERRY 6520 Parker Lane Indianapolis, IN 46220

PRESIDENT'S MESSAGE

Greetings to all the members of the Auxiliary and to any others who might be reading this column. I appreciate this chance to have you as a reader and to know you are interested in the Auxiliary, its activities, and its purpose.

As someone who is not a technician, I appreciate the fact there is an Auxiliary to the Guild. Because there is an Auxiliary, I know that when I attend official Guild functions there will be others in attendance who are also not technicians but who are related to technicians and their businesses. I have come to realize that I have a lot in common with these people, and I enjoy spending time with them while my technician husband is involved with Guild meetings and classes. I have also become aware that these people can help me find my place in relation to this piano service business which is so much a part of our lives.

People I have met through the Auxiliary have taught me ways to make our business more successful and ways to understand and manage some of the pitfalls that are common in the trade. My association with the Auxiliary has encouraged me to become a more diverse person and has heightened my appreciation for the highly-skilled craft which my husband has chosen as a profession. I need some time away from my own separate pursuits to share a perspective on things that are important to him. The nice things about the Auxiliary is that it affords me an opportunity to make some friends of my own in the trade and to learn about parts of the business which are of more interest to me than the technology itself.

I hope the fact that your reading this

column today indicates that you, too, appreciate the Auxiliary to the Guild.

Julie Berry, President

OFFICIAL REPORT OF THE AUXILIARY'S OPENING ASSEMBLY, MEMBER AT LARGE MEETING, AND EXECUTIVE COUNCIL MEETING AT THE 24TH ANNUAL CONVENTION:

OPEN ASSEMBLY - JULY 7, 1981 - Activities commenced 9:45 a.m. in the California Room of Hilton Hotel. President Jewell welcomed all and introduced Marge Evans, wife of Western Regional Vice President Daniel Evans. Marge was proud to present three special visitors: Mrs. Ralph (Jean) Long from Great Britain, Mrs. Robert (Lynda) Smit from Canada, and Mrs. Owen Mathisen from New Zealand.

Shawn Skylark, Guild President of San Francisco Chapter, greeted all and stressed the importance of sharing and cooperation. Shawn extended his assistance and stated we would all be surprised at the loving, gentle and proud people in San Francisco.

Bert Sierota called for a Roll Call by States: 65 answered roll call from 24 states, Canada, Great Britain, German Republic and New Zealand. Board members and Auxiliary Exchange Editor were introduced. Agnes Huether gave a beautiful memorial. Board members read Activity Reports. President Jewell introduced Past Presidents and Honorary Life Members attending.

Two speakers from Cable Car Seminars presented a slide show program of San Francisco area with information on where to go, what to see and how to get there. Maps were supplied.

President Jewell went over schedule and thanked all for attending.

MEMBERS AT LARGE MEETING JULY 7, 1981 - Meeting called to order 11:00 a.m. in California Room of Hilton Hotel. First Vice President Julie Berry explained reason for meeting was to elect delegates and alternates to represent each area at Council Seven members at large answered roll call. Delegates and alternates chosen to attend Council were:

Arlene Paetow, Delegate, NE Region.

Agnes Huether, Alternate, NE Region.

Louse Strong, Delegate, SE Region.

Marian Damon, Delegate, CE Region.

Ruth Sorg, Delegate, Western Region.

Alpha Tolbert, Alternate, Western Region. There being no further business, meeting adjourned at 11:15 a.m.

EXECUTIVE COUNCIL MEETING -JULY 7, 1981 - Meeting called to order 1:15 p.m. in California Room of Hilton Hotel, President Jewell appointed Kathryn Snyder 2nd Vice President pro tem. Fifteen voting delegates and four non-voting alternates responded to roll call. Five observers present. Minutes of 1980 Council meeting in Philadelphia read by secretary and approved as read. Officer expense reports read and accepted. Committee reports given by Julie Berry re: Rockwell print project. Initial investment was \$750.00 Sales to date: \$1,860.00. Profit: \$1,110.00. Print project very successful.

Proposed budget for 1981-92: President, \$75; 1st Vice President, \$50; 2nd Vice President, \$30; Treasurer, \$200; Recording Secretary, \$75; Corresponding Secretary, \$35; Parliamentarian, \$5; Immediate Past President, \$10; Auxiliary Exhange Editor, \$50; Historian, \$25; Printing, \$150. Budget Adopted.

Lu Preuitt reluctantly returned Kansas City charter to Auxiliary.

Nominating committee chairman read slate of officers: President, Julie Berry; 1st Vice President, Belva Flegle, 2nd Vice President, Shirley Truax; Recording Secretary, Bert Sierota; Corresponding Secretary, Agnes Huether; and Treasurer, Ginny Russell. Slate adopted.

Bylaws revision committee chairman's report presented to Council. Additions accepted.

Nominating committee for 1981-82: Bert Sierota, chairman; Norma Lamb and Ruby Discon, members.

Belva Flegle promised Council a more complete Auxiliary Directory next year. Julie Berry presented to Council the proposal of setting aside \$500 for entertainment in Washington. President Jewell thanked all for their support and cooperation. There being no further business the meeting was adjourned at 2:25 p.m.

(These official convention reports were prepared for the *Journal* report by the Auxiliary's Recording Secre-

tary, Bert Sierota.)

A THANK YOU NOTE FROM LUELLYN PREUITT

"Thank you! To all members of the Piano Technicians Guild Auxiliary, a great big THANKS goes to you from me. The beautiful commemorative certificate, with its artistic engraving, is the most unique of its kind in my experience. Your thoughtfulness in providing the matching space for friends to sign, and for me to display beside the certificate, will be forever appreciated. So soon, it is one of my most cherished memories. Peace."

AUXILIARY PINS AVAILABLE

If you are a member of the Auxiliary and would like to have a membership pin to wear, you can receive one by writing to the Auxiliary treasurer, Ginny Russell. The pins cost \$2.50 each.

NORMAN ROCKWELL PRINTS

Norman Rockwell's print of "The Piano Tuner" is available from the Auxiliary for \$3.50 (that includes postage and handling). Prints may be ordered from the Auxiliary's Second Vice President, Shirley Truax. Please make checks payable to the Piano Technicians Guild Auxiliary.

Coming Events

Notices of seminars will be accepted for insertion in THE JOURNAL no sooner than six months before an event. In addition to the listing below, your seminar may be publicized through one free display ad, two columns by two inches deep. It is the responsibility of the advertiser to submit copy for the ad to the Home Office. Material must be received six weeks prior to the publication date of THE JOURNAL.

Note: All seminar dates must be approved by the Conference Seminar Committee. Please submit the appropriate information on the Request for Seminar Approval Form which may be obtained from the Home Office.

October 9-11, 1981
OHIO STATE CONFERENCE
Dayton, Ohio

Contact: Francis Hollingsworth 2271 E. SV Paintersville Rd. Xenia, OH 45385

October 11-13, 1981
FLORIDA STATE CONVENTION
Daytona Beach, Florida

Contact: Walter T. Pearson c/o Community Piano Service 2366 So. Ridgewood Ave. South Daytona, FL 32019

> October 16-17, 1981 NEW YORK STATE CONVENTION

> > Howard Johnson's Plainview, New York

Contact: Richard Dante 12 Magnolia Drive Kings Park, NY 11754 (516) 724-8720

October 16-18, 1981

TEXAS STATE CONVENTION & SEMINAR

Space Center Inn Houston, Texas

Contact: Martin Wisenbaker 808 Cordeli Street Houston, TX 77009 (713) 864-6935

November 7-8, 1981

BALDWIN/STEINWAY SEMINAR Sponsored by Baltimore Chapter Towson State University Baltimore, Maryland

Contact: Morris Millman 8326 Scotts Lev

8326 Scotts Level Rd. Baltimore, MD 21208 (301) 655-6527 or (703) 442-6165 January 8-9, 1982 ARIZONA STATE SEMINAR

Contact: John Allen Mesa, Arizona (602) 839-6078

February 19-21, 1982 CALIFORNIA STATE CONVENTION

Pasadena Hilton

Contact: Raye McCall 1078 East Third Street Pomona, CA 91766 (714) 622-8826

March 26-28, 1982 PENNSYLVANIA STATE CONVENTION Pittsburgh, Pennsylvania

Contact: Robert W. Wagner 1225 Saxonwald Ave. Pittsburgh, PA 15234 (412) 884-8222

UPCOMING CONVENTIONS OF THE PIANO TECHNICIANS GUILD

1982 July 4-9 Washington, D.C. Capitol Hilton

1983 July 4-8 New Orleans New Orleans Hilton & Towers



Glad to be back with you all for some more valuable pianner info and experiences: Hope that this dessemination of information helps all of you, altho I know that some of it may be too teknicle for some of our yunger members to unnerstand!

Did a pianna the other day; customer said the keys were ½' low, so I put ½' blocks under the front casters—guess that took care of the problem, as I haven't heard from him since.

Have you ever had a pianna where the hammers were hitting the left string of the next unison? Well, I've got TWO solutions—What I did was to cut that adjoining string, and take it out—made a lot of work doing some loops on the other strings, but it worked!! My partner said I did it all wrong, should have simply cut off 1/3 of the hammers with a razor blade and it wouldn't take near as much time.

Customer the other day said his cheeks were loose, told him I know a great plastic surgeon in San Francisco. (Met him at his bank in San Francisco, during the convention, did you notice that everyone in Frisco has a bank? Or two?).

A lady with a Grange Piana awhile back said she wanted Bellyman felt, well, I'm a man, so I felt her belly—she screamed and carried on something awful. Sometimes it's hard to please a customer.

Another lady called and said her aftertouch was bad, I told her to just light up a cigaret afterwards and forget it.

Lady called wanting a Dame-Chaser,—gave her the names and numbers of several guys around town—she hung up on me—maybe I misunderstood what she said?

Housewife met me at the door the other day in a bikini, said her shanks were warped, I said "they look alright to me!"

Customer called and said the Damper Pedal wasn't working right—went out and fixed the soft pedal—he said I did the wrong one—Doesn't "Damp" mean "to soften"???

About this couple of piano tooners that got married last month, instead of Organ music, they used a stereo with bridle tapes.

Now, just to whet your appetite, we are about to launch a new Sooply House, and will list available new erresestble items next month: As an example: We will have white canes and dark glassesses, (in a kit), for your calls on customers who think you are blind, and answer the door in their "altogether".

Kornbinder II Series '81, Article II

JOURNAL SUBSCRIBER SERVICE Change of Address? Please give us 4 weeks advance notice Attach the label for your old address, write in your new address below. Entering a new subscription? Check the box and fill in your name below Renewing? Check the box below and be sure your mailing label address is correct PLEASE SEND THE JOURNAL FOR 1 YEAR AT \$60

Payment enclosed Name Address Apt. No. City State/Province Zip/Postcode

PIANO KEYS RECOVERED

050 IVORINE • 24-HOUR SERVICE
Factory Method • Return Postage Paid
COMPLETE PIANO KEY RECOVERING
JOHN W. MYERS PIANO COMPANY
1314 E. Court Street • Dyersburg, Tenn. 38024



Meeting of Women Technicians:

A group of 30 women and 7 men attended a meeting of women technicians on July 7th at the Piano Technicians Guild National Convention in San Francisco. The meeting covered a discussion of common experiences, issues and suggestions for women in the technical field of piano maintenness.

The resultant discussions were plentiful and enthusiastic with some of the major issues being:

- (1) Problems and advantages of being a woman technician;
 - (a) With the public.
 - (b) With employers.
 - (c) Within the Guild.
- (2) Appropriate dress and image for women in the field.
- (3) Representation in Guild leadership and technical leadership.
- (4) Development of technical expertise with respect to size and prior mechanical experience.

Some positive suggestions that developed included providing a support system for technical problemsolving and encouraging qualified women to seek leadership positions as convention instructors, tuning examiners, chapter and national officers and institute planners.

The meeting was exciting and dynamic, despite occasional disagreement. The women shared their levels of experience, job or school situations and their basic motivation to pursue piano technology.

The group has agreed to meet again at the next national convention. To insure future efficiency and encourage greater attendance Sally Jameson of Spencer, North Carolina, was chosen to lead the 1982 Women's Technicians Meeting at the National Convention in Washington D.C.

For more information or suggestions please contact Ms. Jameson at: 401 S. Carolina Avenue, Spencer, N.C. 28159.

Christine Haynes Kirsch Registered Technician, Cleveland

NEW PUBLICATION BINDERS

The Home Office can now supply publication binders which will hold 12 copies of *The Piano Technicians Journal*, 9" x 12" size. The vinyl blue covers are plain. Cost: 1/\$8 or 2/\$15 plus postage and handling. This larger size binder has been ordered in response to requests. The supply is limited and orders will be filled in the order they are received. Please confirm previous requests.

The International Scene

At the 1981 meeting of the International Association of Piano Builders and Tuners, LaRoy Edwards was elected a director of IAPBT representing The Piano Technicians Guild. At the board of directors meeting this July the election was formally ratified.

A full progress report on the International Association of Piano Builders and Technicians was mailed to all chapter presidents last June in the regular monthly chapter mailing. Additional oral reports were made to the board of directors at the precouncil board session in San Francisco and all those attending were thanked for their interest in the international aspect of The Piano Technicians Guild's influence and for encouraging and cementing good fellowship around the world.

IAPBT NEWSLETTER—The board of directors approved the establishment of a Piano Technicians Guild Newsletter about IAPBT to be distributed to all groups regardless of present knowledge of the international association. The newsleter to encourage expansion of IAPBT and, incidentally, to bring greater awareness of our Guild and its service to other associations around the world.

1983 INTERNATIONAL MEETING—The 1983 IAPBT meeting will be held in Kyoto, Japan and the board of directors has authorized a review of the possibility of including a visit to China in the planned tour. Those who are interested should begin plans now as more information will be published from time to time throughout the next twelve months. By next convention in Washington, D.C., July, 1982, we hope to have all needed information on file and a list of those planning to join the tour.

Journal on Tape

The Piano Technicians Journal is available on taped cassettes at no charge to members who are totally or industrially blind. The Journal articles are read onto two cassettes by George Defebaugh and then reproduced by the Home Office for each issue.

Chapters and individuals are urged to notify the Home Office of any qualified member who would benefit from receiving the Journal on Tape each month.

TATTATAT			
JOURNAL			
SUBSCRIBER			
JUDJUNIDLIN			
SERVICE			
OLI VI VI			
Change of Address? Please give us 4 weeks advance			
notice Attach the label for your old address, write in your			
new address below.			
Entering a new subscription? Check the box and fill in			
your name below			
Renewing? Check the box below and be sure your			
mailing label address is correct.			
PLEASE SEND THE			
JOURNAL			
FOR 1 YEAR AT \$60			
9			
Bases to the sale and the sale of 4 the sale of the sa			
(
Name			
Address Apt. No.			
' ·			
City State/Province Zip/Postcode			

Classified Advertising

CLASSIFIED ADVERTISING RATES are 20 cents per word with a \$5.00 minimum. Full payment must accompany insertion request. Closing date for ads is the first of the month prior to publication.

Box numbers and zip codes count as one word each. Telephone numbers count as two words. Names of cities and states count as one word each.

Send check or money order (U.S. funds), made payable to the Piano Technicians Guild, to Classified Ads, THE JOURNAL, 113 Dexter Avenue North, Seattle, WA 98109.

The Journal does NOT provide blind box service. Please include a mailing address and/or telephone number with your ad.

Ads appearing in this journal are not necessarily an official endorsement of the services or products listed.

For Sale

CUSTOMER'S QUESTIONS? The Piano Owner's Guide will answer them between tunings! Inquiries welcome. Hardbound, \$6.95; Softbound, \$3.95. Trade discounts, terms. Apex Piano Publishers, 1014 Kentwood Drive, Mountain Home, AR 72653 (501) 425-7057

PIANO REBUILDING FACILITY and local tuning clientele. Shop features include large kiln/drying room; top quality refinishing area; soundbard press; jigs, power tools etc. Owner will continue as consultant and will tutor soundboard replacement and bridge duplication, etc. Located in four-season resort area. Price reasonable; creative financing available. (906) 863-7387.

COLLECTOR'S INSTRUMENT - Charles M. Stieff Square Grand Piano - Original Ivory keyboard - Mother of Pearl inlaid on front - Ideal for restoration - Rosewood finish - Serial #499. Irene Schaffer, 5579 E. Fair Ave., Littleton, CO. 80121.

NEW SOUNDBOARDS. Sounding board replacement, pin block installation, downbearing adjustment, restringing, action rebuilding and excellent refinishing. All work approached with careful consideration given to both the scientific and musical aspects of the piano in our care. Price sheet upon request. Southwest Piano Reconstructors, Kelly Anderson, 607 E. Main, Lancaster (Dallas) TX 75146. (214) 223-1439.

QUARTERSAWN 5-PLY VERMONT ROCK MAPLE PINBLOCKS and 3/8" bridge stock. Call or write: George H. Wheeler, 11 Cherry Hill, Springfield, VT 05156, (802) 885-5325. KEY RECOVERING MACHINE — Build your own key recovering machine. All parts and/or completed machines now available. Send \$10 p.p. for accurate machine drawing instructions, photos to: Solenberger Piano Service, 1551 Lynn Court, Santa Rosa, CA. 95405 or (707) 542-1756.

JOHN BROADWOOD BOUDOIR GRAND PIANO— 7 feet rosewood, mechanical wrest plank, #2947, ca. 1855. Good original condition. \$2,800.00 offer. David Walls, (206) 628-8988, 517 - 9th Avenue, Seattle, WA 98104

NEPAC KEY BUTTONS. The finest basswood key buttons available made in traditional design. KB-1, for Steinway grands, \$39.95/set; KB-2, standard size for grands, \$39.95/set; KB-3 for uprights, \$37.50/set. Prices do not include shipping. Order direct from the manufacturer. New England Piano Action Co., 6 Vernon St., Somerville, MA 02145. (617) 628-1591.

WHIPPEN REBUILDING. Revive the "feel" of Steinway grand piano action. The piano action specialists at New England Piano Action Co. can completely rebuild and modernize Steinway Whippens at a cost far less than that of a new set. Other action rebuilding services available. Please write or call for more information and prices. New England Piano Action Co., 6 Vernon St., Somerville, MA 02145. (617) 628-1591.

1888 BALDWIN GRAND Ser. #1951. Solid rosewood. Picture and copy of appraisal on request. \$10,000 min. Write: George Sizemore, PO Box 11462, Phoenix, AZ 85061.

ONE EDITION of Aubrey Willis Home Study Course. Two volumes, complete, good condition. \$275 or make offer. Rt. 1, Box 453-C, Hawthorne, FL 32640. (904) 376-0134.

96 volumes of PIANO TECHNICIANS JOURNAL, June '72 thru August '80, all kept in 6 handsome Journal holders. \$75.00. JACK WATMORE, 613 11th Ave. South, Naples, Fla. 33940 (613) 262-5174.

TUNING BUSINESS & HOUSE. Established tuning business (ten years). Private house on business-zoned property on main street in town. \$55,000. GIANNETTI, 420 Neighborhood Road, Mastic Beach, N.Y. 11951 (516) 281-2959.

ZUCKERMANN HARPSICHORD KITS—A real challenge for the interested technician. Factory direct shipment at factory prices. Troubleshooting and advice for kit builders. Authorized Agent: Yves A. Feder, R.T.T. Harpsichord Workshops, 2 North Chestnut Hill, Killingworth, CT 06417, Telephone (203) 663-1811.

PIANOS FOR SALE — Always on hand, 150 to 300 uprights! Plain case, art case, and players. Also 50 to 150 grands at all times, as is or rebuilt. Excellent brand names — no junk! All set up for inspection. Lowest possible prices. Call for quotes: Owen Piano Wholesalers, 2152 W. Washington Blvd., Los Angeles, CA 90018. Telephone: (213) 883-9643.

"IVERS AND POND UPRIGHT, SERIAL #24448. Pin-block, bridges, sound-board all in excellent condition. Needs action and exterior work. Great antique value. \$2500/offer. Write to: STAPLES, 3012 RIVERVIEW, COLONIAL BEACH, VA 22443, or call (804) 224-7328/224-7535.

Wanted

PIANO TECHNICIAN seeking job opportunities; willing to relocate; registered craftsman member. Please write: Walter F. Gramza, Jr., P.O. Box 201, East Rochester, New York 14445

WANTED: OSLUND KEY RECOVERING EQUIPMENT. Call or write, George W. King, 2252 East Bijou Street, Colorado Springs, CO 80909. (303) 475-1530.

Miscellaneous

PIANO TUNING & REPAIR. Well equipped shop. Top qualified teachers. Steve Fairchild, Director. Piano Rebuilding by Dante, 2294 Locust Ave., Ronkonkoma, NY 11779. (516) 588-6446

ATTENTION PIANO RETAILERS AND TECHNICIANS. Do you need a quality piano rebuilder and refinisher? Reasonable wholesale prices. Write for brochure listing prices and qualifications. Dante Piano Rebuilders, 2294 Locust Ave., Ronkonkoma, NY 11779. (516) 588-6446.

AT LAST! Tuning, technician courses at The Piano Shoppe, Inc., evening sessions. Victor A. Benvenuto, 6825 Germantown Avenue, Philadelphia, PA 19119, (215) 438-7038. Call or write.

LEARN PIANO TUNING & REPAIRING

Days - Evenings - Weekends

San Francisco School of Piano Technology

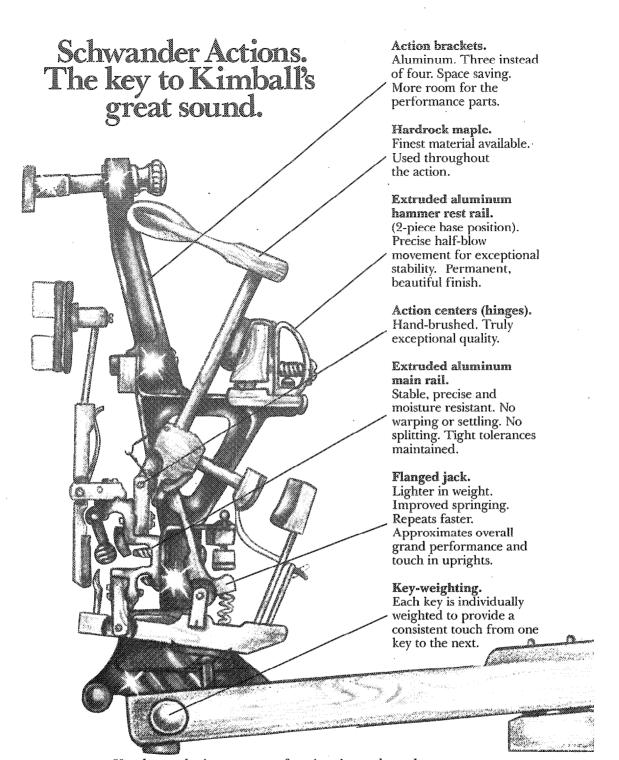
659 Haight St.

San Francisco

94117

Write or Call for Brochure (415) 861-2963

Seiko Tuners - \$135.00 Seiko Metronomes - \$41.90



You know the importance of a piano's touch, and so does Kimball. That's why we manufacture Schwander actions ourselves...to the strictest of standards...to be the very finest made anywhere. At Kimball, we put as much care into our pianos as you do.



The key to sounding great. Kimball Piano & Organ Co 1549 Royal Street - Jasper, Indiana 47546 A Division of Kimball International, Inc

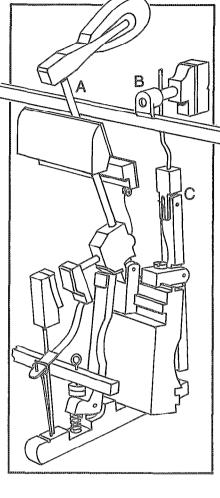
The Wurlitzer sostenuto system -so simple to service

INSTANTLY ACCESSIBLE FOR SERVICE

The sostenuto feature, a popular option on all current Wurlitzer studio, school and chapel pianos (Models 2962 and 2960), follows the principles proved in fine grand pianos and is even easier to service.

Operated from a sostenuto bar (A) actuated by the center pedal, any of 68 dampers may be picked up and held for sustained tones.

A Neoprene sleeve (B) on the damper block shaft has a lip that catches behind the sostenuto bar blade to hold the damper. Neoprene is a virtually indestructible material.



NO NEED TO REMOVE THE ACTION

Technicians will be pleased to know that all adjustments may be made from the top of the piano. It is not necessary to pull out the action.

Another fine point is our unique damper lever (C) which is made in two pieces, hinged and sprung to provide flexibility and make adjustments easier.

A new all-spruce Duraphonic Multiradial™ Soundboard improves tuning stability. In tests with up to 90% relative humidity, solid spruce expanded 5 times more than the new Wurlitzer design, causing more serious changes in string tension.

Wurlitzer Conservatoire Model 2960 with optional sostenuto meets all known school specifications. Maximum string length is 48½ inches.



PIANO TECHNICIANS GUILD

October 1981 Update

Your Security Blanket

Insurance policies offered by the Guild insurance broker are made available as a membership service and are neither endorsed nor recommended by the Guild in preference to other similar plans.

Eloise Ross
Sunset Insurance Associates

Hello again; it has been a while since communicating with you about the voluntary insurance plans available to PTG members. There are: Comprehensive Health & Dental; Supplemental Life (for all who have the group death benefit); Accidental Death and Dismemberment and Tool & Bailee's Customer!

YOU ARE IN LUCK, the very first contract for renewal is the Tool and Bailee's

Customer. If you don't have it you'll want it!

The protection for tools insures against risks of physical loss or damage, ie: fire; cyclone; tornado; theft, must be evidence of forcible entry; transportation, including collision and overturning of vehicle; etc.

There is a \$50 deductible; claims are paid on actual cash value (replacement less depreciation) basis. The most frequent claim is for theft, including one robbery!

The Bailee's customer protects the pianos, organs and/or harpsicords accepted by the technician on his premises (shop); the customer's home; in transit (including loading and unloading); against fire; cyclone; tornado; explosion; collision, etc.

Claims are paid after a \$50 deductible, according to the value of the property at the time of loss. Example, a \$1,000 piano will be increased in value to, say, \$5,000; at the time of loss only a portion of the contracted work had been done, the value of the piano \$2,500, that is the basis for claims payment NOT the \$5,000. As the contract states, "in the event of loss, the company will be liable for no greater proportion than the amount insured bears to the actual value at the time of loss".

The effective date of the Master Contract is November 1. We have BIG news, no increase in premium for the 1981-1982 policy year. HOWEVER, we have increased the amount of protection you may have to **five extra** units of either and/or both tools and Bailee's customer. Maximum \$6,000 tools; \$30,000 Bailee's customer.

The basic plan is one unit each for tools (\$1,000) and Bailee's customer (\$5,000); for \$35.00. Each extra unit is \$15.00, (\$1,000 tools, \$5,000 Bailee's customer)

To apply, just write to us, Sunset Insurance Associates, PO Box 16242, Seattle, WA 98116. We need your name, address, number of units you are ordering and your check for that amount of protection. Or you may call us (206) 932-0203 for an application.

For those who already have this valuable protection, you will be receiving a statement for renewal in October. If you want additional units so state and include the proper premium in your remittance.



1982 Hall of Fame Award

Chapters are invited to submit names and qualifications of nominees for the 1982 Hall of Fame award.

For eligibility to the Hall of Fame, the member must have demonstrated:

(1) A definite contribution to upgrading the piano industry.

(2) Outstanding personal and professional integrity to the point of being an inspiration to others.

(3) Long-term dedication to the causes, ideals and purposes of the Guild.

(4) Outstanding contribution and implementation of ideas, programs, etc., resulting in a definite improvement of the piano industry.

All names and qualifications submitted will be considered by the Hall of Fame Award Committee and their selection will be completed by March 1982

If material about or photos of a nominee can be made available for the Hall of Fame book, please enter information with your nomination.

Send nomination and other information to Dick Bittinger no later than December 31.

Chapter Notes

The June and July meeting of the Los Angeles Chapter both dealt with conventions. In June, President Richard Davenport gave a presentation of the First World Convention of Piano Makers and Technicians in Gwatt, Switzerland, He showed slides of the convention and of the classes with their full size models of keyboards, actions, dampers, etc., with "hands-on" installations by the students. He spoke of the superb technical teaching and of their innovative tools and gadgets. Francis Mahaffy had them for sale at the San Francisco Convention.

Richard also took slides of several European plano factories showing excellent shots of machines, assembling areas, etc., emphasizing the unique points of each factory. Norman Neblett finished with an "Inspirational Talk" on the grand jack.

In June, Program Leader Norman Neblett asked several members who attended the San Francisco Convention to report on the class that was most helpful to them. Norman discussed the big improvement of the new Kimball Action Models over the usual ones. Ilwyn Lamb talked about Steve Fairchild's formula and the new 200 MW Speaker Amplifier. Ernest Dege explained how to plug tuning pin holes with falconwood plugs from Cliff Geers. Terry Powell spoke about basic tuning, Richard Davenport reported on making new keys and fitting new action to an old grand with wooden brackets. George Defebaugh covered the convention as a whole and shared many good insights about problems, preparations, emergencies, etc.

President Richard Davenport welcomed DEBBIE McBRIDE as an apprentice member, upgrading from student.

Twenty members including spouses and quests of the Syracuse Chapter of the Guild traveled to Yale University for an in-depth look at some of the most important pianos and plucked stringed keyboard instruments of Western Civilization. Nicholas Renouf, Assistant Curator, spent an afternoon explaining the historical significance of instruments like the Johann Jacob Koenike grand forte piano. The Yale collection is considered by many to contain the finest stringed keyboard representation of 17th, 18th and 19th centurys in the world. One of the most spectacular instruments of the period, and one of the great musical instruments of Western Culture, the 1770 - Pascale Taskin harpsichord was demonstrated by Mr. Renouf.

The next day the members were guests of Joe Bisceglie and Vince Orlande for a VIP tour of the production facilities at Steinway. They watched the production of felt bushed grand hammer shanks. Joe Bisceglie informed the group that the new felt is made of teflon impregnated bushing cloth.

Emory University sponsored a two day seminar June 19 and 20 on piano technology conducted by the Atlanta chapter of the Piano Technicians Guild, Instructors included Cliff Geers, Allen Foote, Marion Robinson, Larry Crabb, Harry Day, Steve Cox, Tim Reed and Jerry Cude, Subjects covered ranged from vertical piano reconditioning, high level grand regulating, tuning, voicing to refinishing and other phases of piano rebuilding. It was the first of what is to be an annual event for Emory University and the Atlanta Chapter of the Piano Technicians Guild.

New Chapter Officers:

Tim Reed—President; Larry Crabb—Vice-President; Larry Miller—Secretary; Steve Cox—Treasurer; Ted Staton—Tuning examiner.

Larry Crabb was chosen again as a chapter delegate to the San Francisco convention.

The Eastern Washington Chapter has entered into an agreement with the Eastern Washington Historical Society to restore a Steinway square grand that a private party donated to the Cheney Cowles Museum. They're doing this as a chapter project for parts cost only and will be trying to get as much publicity for the Guild and the chapter as possible. The area is extremely poor in public awareness of the Guild, so this project should be a good start in their publicity program.

The chapter will also have a group listing in the directory of the Spokane Chapter of the Washington State Music Teachers Association. This should help set them apart from non-member tuners in the area in a quality way.

The Southwest Florida Chapter "hit the road" instead of their regular June business meeting. Their destination: The shop of Joe Buscio in Fort Myers. Howard Goodman, newly elected VP, opened the meeting with a prayer in both Hebrew and English. The meeting covered a discussion between chapter members on issues to be brought up at the San Francisco Convention in July. Afterwards, Joe gave a technical program on installing and regulating dampers in a grand plano.

Moving? Changing Your Address?

Be sure of your regular Journal delivery by asking the Post Office to forward your Journal to your new address. Journals that cannot be delivered because the addressee has moved are not returned to us. We are sent a notice only and must pay 25¢ for each non-delivery notice.

To mail a duplicate copy means double Journal costs plus the return postage notice cost plus around 60¢ remailing charges plus office overhead. The Home Office has done this whenever possible but we are finding that it is becoming more difficult to do so now that we no longer have so large an overrun of the Journal printing each month.

BECAUSE WE WANT TO BE SURE YOU RECEIVE YOUR REGULAR JOURNAL EACH MONTH!

 Please ask the Post Office to forward your Journal to you when you move.

Please notify the Home Office as soon as possible, 5-6 weeks before you change your address.

3. Should you not receive a Journal, please advise us immediately. On such prompt notification we can usually send a duplicate. When notified after any delay, we are not able to promise a duplicate Journal.

The Board of Directors has adopted a new policy:

"The Home Office is to charge a postage and handling fee for mailing duplicate *Journal* issues to replace missing issues due to a change of address."

June Chapter Mailing

Treasurer-Secretary Charlie Huether's annual report

International Relations Committee report on meeting in Switzerland

University Technicians Committee annual report

Notice about the San Francisco
PTG Flea Market

July Chapter Mailing

The Resume of the 1981 Council action and Reports of Board Action were sent to all chapters August 15th. (The same information was printed in the September issue of the Journal).

August Chapter Mailing

Full computer printout of all chapter members for checking and return to Home Office

List of members delinquent in dues payment

Full information on 1982 guild dues procedures

Form to request Home Office to collect chapter dues

Other items appropriate to individual chapters

Notice on Chapter Mailing

In the future, chapter mailings will be posted on the fifteenth of the month instead of the seventh. The mailings will be planned to be in the hands of chapters before the first of the month and information will be sent in plenty of time for all chapters to receive and act on the contents. This should be especially helpful where a prompt response is requested.



Computer Printout

A computer printout of all members has been mailed to every chapter. Any changes or questions should be written on the printout and returned to the Home Office for action. If another printout is requested the Home Office will send one to the chapter.

PLEASE return the printout even if there are no corrections. This is an important part of your Home Office check on membership before the annual billing is set up.

In Memorium

ORAL GERHARDT, Pomona Valley California Chapter.

RICHARD FITZGERALD, Houston, Texas Chapter.

FLOYD QUALLS, Oklahoma Chapter.

ERNEST KORETZ, Los Angeles Chapter.

WILLIAM KREWSON, Macon, Georgia Chapter. DAVID KENNEDY, New York City Chapter. SIDNEY O. BROWN, Houston, Texas Chapter.





MEMBERSHIP DUES AND PROCEDURES FOR 1982

GUILD DUES for all members (except students) are on the calendar year. Billings are sent to members early in December. Dues are payable on or before January 1, 1982, in <u>U. S. funds</u>. Members must pay the <u>full</u> amount shown on their annual billing, as approved at the 1981 Council Session by the delegates. There will be no provision for partial payment of dues for 1982.

Seems and	<u> </u>		MOS DEED 1998 1998		D70000 000	0000 Y000000	E00000 D	and a
Ĭ	DUES PAYMENT DATE	DELINQUENT DATE	DROP	DATE				200
	January 1	March 31	May	1				
\$ IS				-		Berr Bassas		

DUES

Registered Technicians, Apprentices, and Allied Tradesmen	\$114.00
Associate Members and Affiliate Members	\$ 57.00
Chapter Sustaining Members and Chapter Dues Waivers	\$ 38.00
Membership Insurance Pledged to the Guild	\$ 57.00

 $\underline{\text{CHAPTER DUES}}$ are included in individual billings $\underline{\text{if}}$ the chapter has arranged with the Home Office to do so. The full amount of Guild and Chapter dues must be paid at the same time. Chapters will be provided lists of members who have paid.

Chapters which do not make arrangements to have the Home Office include their chapter dues will collect them individually. Chapters will also collect chapter dues for those members who are approved as new members, transfers, and reclassifications received in the Home Office after October 23, 1981, because they will not be in the computer records in time for the annual December billing.

DELINQUENT DUES - Members become delinquent in payment 30 days after the date shown in the billing statement. Copies of the delinquency notice will be sent to the member whose dues have not been paid, the chapter president, and the regional vice president. Members who remit their dues during the delinquency period will be retained in the Guild.

DROPPED - If no response is received to a delinquency notice, the member will be dropped.

STUDENTS - Guild dues for students are \$60.00, payable on entry and on the anniversary date of the entry each year. Students should apply for reclassification at least once a year. The Chapter's approval must be received in writing at the Home Office before a student's dues can be accepted for renewal of membership. If students are not accepted for renewal or become delinquent in payment of dues, they will be dropped.

<u>REINSTATEMENT</u> - As required by the bylaws, a \$30 reinstatement fee is assessed, in addition to payment of back dues. The chapter's signed consent for reinstatement is required before reinstatement can be effected.

<u>INSURANCE</u> - Any Guild insurance is automatically canceled when a member is dropped and cannot be reinstated until the member's full membership is reinstated.